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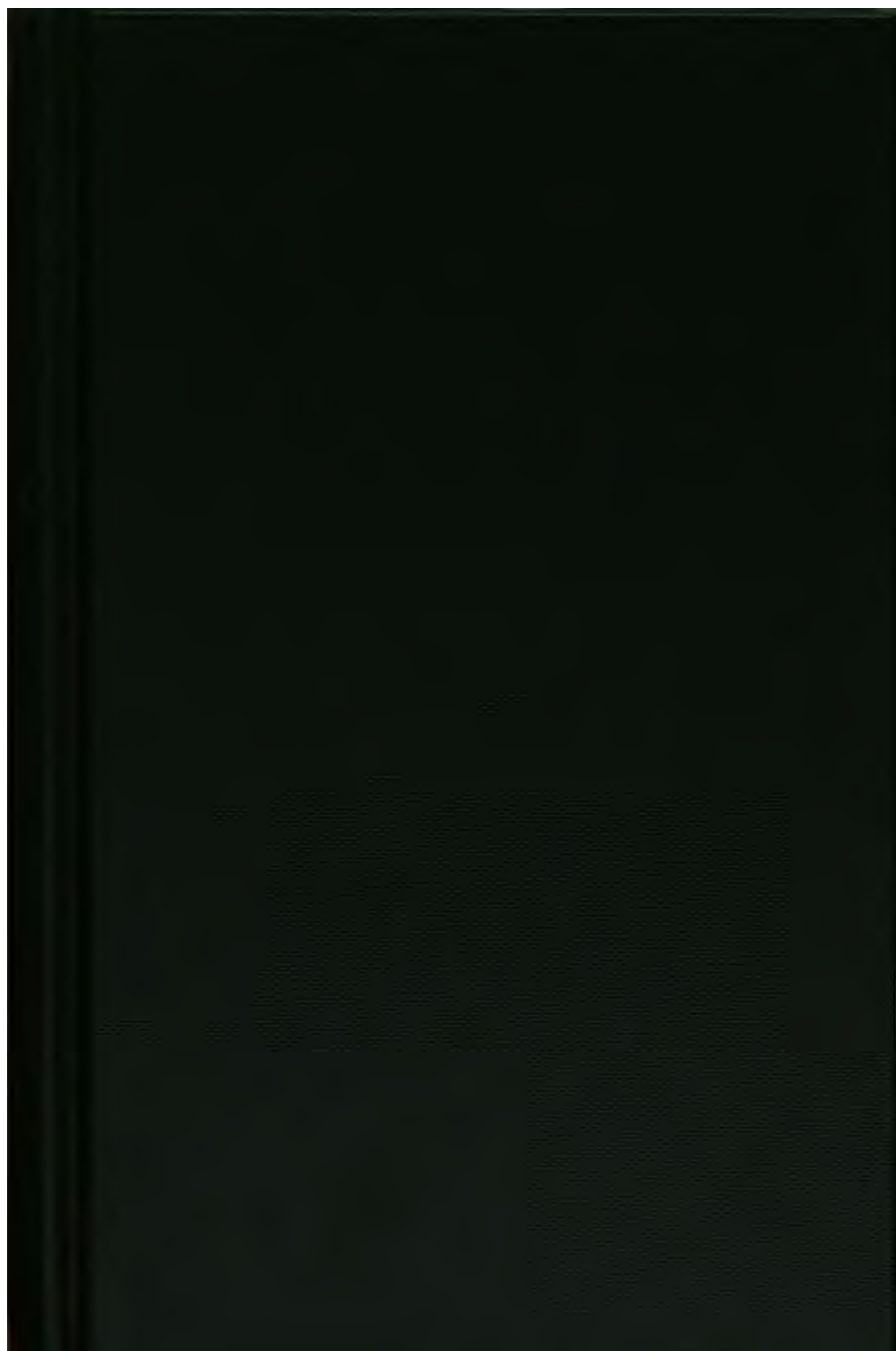
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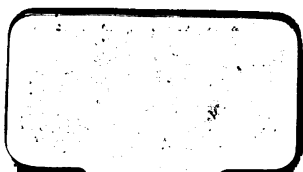
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SOMERSETSHIRE
Archæological and Natural History Society.

PROCEEDINGS DURING THE YEARS 1865-6.

VOL. XIII.

Somersetshire Archaeological

and

Natural History Society.

Proceedings

DURING THE YEARS 1865-6.

VOL. XIII.

TAUNTON:

FREDERICK MAY, HIGH STREET,

LONDON: BELL & DALDY, YORK STREET, COVENT GARDEN.

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1954



THE Publication of an Annual Volume by the Society has been intermitted two or three times, partly on economical considerations, and the Council are anxious now to return to the practice of issuing a Volume yearly. The interest in the Society is necessarily abated without the evidence of life which the Volume affords, and Members at a distance from head quarters, not unreasonably complain, if they miss its annual appearance. If Members will pay their Subscriptions regularly, and discharge arrears, the Council see no reason why a Volume should not be published next year, and so on, year by year continuously. There is plenty of valuable matter, and more might possibly be had, if contributors were sure of an early publication of their Papers.

The Committee have the pleasure to state that the Wells Illustrations announced in the last Volume, will be found in this.

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PROCEEDINGS
OF THE
SOMERSETSHIRE ARCHÆOLOGICAL AND
NATURAL HISTORY SOCIETY,
DURING THE YEARS 1865-6.

PART I.

THE Seventeenth Annual General Meeting was held at SHEPTON MALLET, September 21st, 1865.

On the motion of F. H. DICKINSON, Esq., President, it was unanimously resolved that R. H. Paget, Esq., M.P., of Cranmore Hall, be the President of the Society for the ensuing year.

The PRESIDENT having taken the Chair delivered the following address :—

I have found myself very unexpectedly compelled by an invitation too flattering to be refused, to accept the office of presiding over you on this occasion. Much as I appreciate the honour you have done me by your choice, it is, I assure you, no idle figure of speech which I use when I say that I would far rather have attended here as a private member of your association, content to receive instruction at the hands of one well able to impart it, of one to whose presidency this Society had looked forward with the greatest

interest, and who would have filled my present position far better than I can hope to do. I am sure it will be satisfactory to this meeting to know that Mr. Horner, to whom I have alluded, is rapidly recovering from the effects of his late accident. Long absence from England has hitherto prevented me from attending any of your meetings, and I hope you will extend your forbearance to me, for I must throw myself upon your generosity, asking you to be "to my faults a little blind," and to excuse any omissions or shortcomings on my part. And now let me congratulate you on the apparent success of the meeting here, and on the full attendance of members to-day, being the Seventeenth Anniversary of the Society. It is very satisfactory to know that at this period of its existence the Association shows no signs of flagging, but rather that it has gained fresh strength during the past year, and that the interest in it is as sharp and as keen as it has ever been. To such an audience as I have the honour of addressing, it would indeed be presumptuous on the part of one whose knowledge is but slender and imperfect, to attempt a defence of the study of archæology. But this much I may say, it is no slight tribute to its practical advantages that in this matter-of-fact, utilitarian age of ours, it awakens such a lively and increasing interest. We have, thanks to archæology, long since emerged from an age of neglect, and having passed through an intermediate age of restoration, have now happily arrived at that far more satisfactory period—an age of preservation. And here I cannot refrain from mentioning a gratifying instance in this town, where a most interesting relic of undoubted Roman origin, having been discovered in digging the foundation of a new brewery, has been arched over, and carefully preserved by Mr. Clarke—a fact which deserves to be known, and en-

titles its author to the thanks of all archæologists. Fears have been expressed to me by some of our members that our field is but small, and that Somerset will soon be exhausted ; I confess I have no such fear. There are few counties of England so rich in architectural and other archæological objects of research, but if the time should come, and to my mind it is yet far distant, when each ruin shall have been explored, and each church have been examined, are we not also a Natural History Society ? Has not nature with us been more than usually lavish of her ever varying beauties ? Surely when we consider the vast field which thus opens to our view, we must feel with Newton, when he says : "To myself, I seem to have been as a child playing upon the seashore, whilst the great ocean of truth lay unexplored before me." The object of the study of archæology is not, as some would have us believe, the mere collection of crude facts, the spending a lifetime in merely hunting for dry bones or damp caves, or a barren deciphering of semi-illegible manuscripts, but a search for the riches of that great ocean of truth which lies comparatively unexplored before us. Our aim is not alone to rescue from an inglorious obscurity the treasures of archæological lore, which are to be found nearly everywhere, but to unravel the mysteries of nature, to rifle her cavern treasures, and read that history which she has written in imperishable characters on every sedimentary rock in the globe. But archæology also has its value, and no slight value, as an inductive science. Doubtless there are some men who smile at the theories hazarded by archæologists and geologists, hard matter of fact men who believe nothing until it is proved as clearly as a problem of Euclid—to such I would say, think for a moment of the three great instances in our own day of the marvellously

correct results of inductive science. Think of the simultaneous discoveries by Adams and Leverrier of the certainty of the existence of a hitherto unknown planet; think of the triumph of inductive comparative anatomy achieved by Professor Owen in his fore-shadowing of the *Dinornis*; think of the third instance, equally wonderful, of the fulfilment of the prophecy (for I can hardly speak of it by any other name) of Sir Roderick Murchison as to the existence of the gold fields of Australia; and then who will assert that all is speculation and nothing certainty in inductive science? But the practical object we have in view as the Somerset Archæological Society is the completion of a history of the county, and with that view facts are being gradually accumulated by the Society, which cannot fail to be of the greatest use to the future historian of Somerset. I have in my possession a great mass of information compiled for a history of one of the hundreds of Somerset, a collection which is extremely valuable from the scrupulous care with which each date and each fact were verified. It was the result of years of study and labour of one doubtless known to many in the room, who took a great interest in the pursuit of archæology, one whose intellect rendered him well capable of carrying out the work, and who, had he been spared, could not have failed to produce a work of real value and interest and of lasting reputation. I can only say that I would gladly place these at the disposal of any gentleman willing to complete the labours so well begun and so untimely ended. But I am afraid I am forgetting the advice impressed upon me by our worthy Secretary, to lose no time in proceeding to the business of the day. We have plenty of work in store, and although I fear we have no object of surpassing interest, nothing pre-eminently grand

or stupendous to hold out to the archæologist, yet I would fain believe that the different churches we propose to visit will each be found to have its special merits. We have, besides, a Roman road, the Small Down encampment, and the fine old barns of Pylle and Doultling—outworks as it were bearing sturdy evidence of those grand monastic institutions which did so much for the advancement of science and the spread of civilisation throughout this country, buildings that can hardly fail to interest the archæologist, or any one who has an admiration for the picturesque. Who can look at those massive buildings seemingly constructed to last for ages without feeling that despite their rude solidity, they yet please by the picturesque arrangement of roof and buttress, whilst the pierced window and minor delicacies of detail all indicate the work of a master mind which did not disdain to leave the impress of its intellect on such an ordinary building as a barn. At the close of to-morrow's excursions you will find mention of Cranmore Hall, and I have the honour to announce that I am instructed by its owner to provide refreshment for such of the weary archæologists as may be willing to accept his hospitality after their day's excursion. I will now no longer detain you. I have endeavoured feebly to sketch what I conceive to be the aim of archæology—a search for truth, for “those sermons in stones, books in the running brooks, and good in everything,” a search which I think should be entered upon in that reverential spirit which prompted the old Somersetshire worthy when he wrote—

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The Rev. W. A. JONES, M.A., F.G.S., one of the Hon. Secretaries, having expressed his regret at the absence of his colleague the Rev. F. Warre, from ill-health, presented the following Report :—

ANNUAL REPORT.

“Your Committee, in presenting their Seventeenth Annual Report, are happy in being able to announce that the Society continues to maintain its ground. Considering the very limited income at their disposal, they cannot but regard the progress made towards a more complete history of the county, by the valuable papers published in the proceedings, as encouraging and satisfactory. They are, however, aware that the operations of the Society need to be enlarged and improved; but they would suggest that more extensive support and more individual co-operation on the part of members in different parts of the county is needful to produce this result.

“The Committee rejoice in being able to report that considerable progress has been made in the arrangement and classification of the very extensive and interesting collection of Mendip Cave Bones now in the possession of the Society; and they desire to record their sense of the highly important services rendered by Mr. Wm. Ayshford Sanford in the classification of them, by whose arduous labours and scientific knowledge the value and interest of the collection has been greatly increased. Arrangements are being made by which the members of the Society will be supplied with a catalogue of the collection and illustrations of the most important specimens. If the Society had not purchased this, in many respects, unique collection, it would probably have been dispersed, and the county of Somerset would have lost the means of illustrating one of the most interesting features of its Natural History, and

of contributing, as it will now, to the advancement of scientific knowledge.

"Your Committee regret much to have to complain of the tardiness and irregularity with which many members pay their subscriptions. With an income barely sufficient to do the work absolutely necessary, and falling far short of what this large county might supply, it is obvious if this continues the operations of the Society cannot fail to be hampered. After repeated applications, the arrears at present amount to upwards of £80. It is hoped that next year this evil may be remedied, and in future avoided, and that the Committee will be able to express their congratulations without any drawback or qualification."

In the absence of the Treasurer, the Rev. W. A. JONES also read the following Financial Statement:—

The Treasurers in account with the Somersetshire Archaeological and Natural History Society.

1864.	£ s. d.	1864-5.	£ s. d.
To Balance of former account	78 6 3	By expenses at Annual Meeting	
„ Subscriptions	160 1 6	at Burnham	4 10 9
„ Entrance Fees	2 10 6	„ Advertising	11 0
„ Illustration Fund	3 4 6	„ Stationery, Printing, &c. ...	5 7 5
„ Transfer from Beard collection Fund in part pay- of loan of £56 0s. from general account	41 2 1	„ Coal, Gas, &c.	14 2 9
		„ Curator's Salary, 1 year to 3rd August, 1865	29 13 9
		„ Postage and delivery of Volumes	6 2 0
		„ Postage, Carriage, &c. ...	4 5 3
		„ Sundries	1 5 2
		„ May on account of printing Vol. XII.	40 0 0
		„ Shewbrooks (new cases for Beard collection)	53 9 3
		„ Ford (printing illustrations)	3 0 0
		„ Rent (1½ years) to Christ- mas, 1864	37 10 0
		„ Subscription to Palæontolo- graphical Society, three years to 1865 inclusive ...	3 3 0
		„ Insurance	1 2 6
		„ Parker (illustrations of Wells)	63 11 8
		„ Balance	18 10 4
	<u>£ 285 4 10</u>		<u>£ 285 4 10</u>

September 19th, 1865.

H., R. G., H. J., & D. BADCOCK,
Audited and found correct,
WM. P. PINCHARD, Treasurers.

Both Reports having been received and adopted,

The Vice-Presidents were re-elected, with the addition of Sir Alex. A. Hood, Bart., M.P., and F. H. Dickinson, Esq.

The following gentlemen were added to the list of Local Secretaries :—

Rev. Canon Meade, Castle Carey ;

Rev. H. H. Winwood, Bath ;

Rev. W. B. Caparn, Draycot, Wells ;

Rev. James Coleman, Chapel Allerton ;

Mr. Thos. Serel, Wells ;

Mr. John Batten, Yeovil ;

Mr. J. Shore, Whatley, Frome ;

Mr. J. W. Spicer, Chard.

The General Secretaries and Treasurers were re-elected.

The following gentlemen were elected Members of the Committee :—

Rev. W. R. Clark, Rev. W. T. Redfern, Capt. Doveton,

Mr. T. Meyler, Mr. W. P. Pinchard, Mr. Edwards

Beadon, Mr. H. Alford.

“Resolved that all the Officers of the Society, who by Rule II. are *ex-officio* Members of the Committee, be summoned quarterly for the transaction of business, such meetings to be called Meetings of Council.”

“Resolved that the next Meeting be held at Ilminster or Chard.”

The Rev. PREBENDARY SCARTH read a paper on “The Roman Potters’ Kiln,” in Shepton Mallet. These interesting remains were discovered while excavations were being made for a new brewery, and at a considerable expense they were carefully arched over and preserved by the proprietors, Messrs. Morris, Clarke, and Co. This paper is printed in Part II.

W. AYSHFORD SANFORD, Esq., F.G.S., read a paper
*On the Course of the Rivers in Western Europe
during the Pleistocene Period, and the distribution
of the Mammalia affected thereby. (Abstract.)*

He stated that the occurrence of the hippopotamus, accompanied as it was with rhinoceros leptorhinus, and rhinoceros megarhinus and elephas antiquus, all animals allied to forms which now inhabit much warmer countries, together with the reindeer, rhinoceros tichorinus, and elephas primigenius, and other animals of a still more decidedly Arctic type, in the caves and in the valley deposits of our rivers during the period in question was a source of difficulty, the explanation of which he endeavoured to aid. He recapitulated the statements of Sir Charles Lyell as to the changes of level of Western Europe since the first or great glacial epoch, and shewed that during the latter part of that period England, or a portion of it at least, had been sunk to a depth of 1,300 or 1,400 feet, so that beaches containing Arctic shells of existing species were formed at that height on our mountains, and from this submergence the land gradually rose until England, Ireland, and the Orkney and Shetland Islands probably became a portion of the European continent; and adduced arguments from the flora of the west of Ireland, and from the dredgings on the west of the Shetland Islands to prove that this elevation was very considerable, and, judging from the soundings on the one hundred and two hundred fathom line, he argued that the elevation was possibly, if not probably, not less than 1,200 feet, which would have carried a steep coast from the neighbourhood of St. Ander, in Spain, nearly in a straight line to a point more than one hundred miles from the north-west coast of

Ireland, and it would have included the Orkneys and Shetlands in its sweep. All this he justified from the statements of Sir C. Lyell, the late Dr. E. Forbes, Professor Jamieson, and others. He then passed to the question of the course of the rivers, and stated that he had examined the soundings over this area, and had come to the conclusion, that, supposing the elevation of Western Europe to have been uniform, the main river of this part of the world was then the Rhine. The watershed of the plain which now forms the North Sea would have been between Flamborough Head and the Texel, and the course of the Rhine would have been through the Straits of Dover, and it would have had its mouth at a considerable distance from the French coast, off Ushant; and the Humber, the Thames, the Seine, the Loire, and all the rivers on the south coast of England, and probably even the Severn, would have been all tributaries of that vast stream, as it then would have been. He next showed that the tender Irish flora, which came from Biscay along the coast of this old land, probably came at this time, for it could not have survived the previous glacial period in the latitude of Ireland; and that, consequently, the mouth of this great stream would have been habitable by these southern animals during the whole year, and the distance of their summer migrations might not have been greater than is now known to be journeyed by many animals of smaller size on the continent of Africa. The hills, such as the Mendip and the Yorkshire Wolds, would then have been considerable mountains, and would have supported (covered, as they would have been, with the remains of an Arctic flora), perhaps through the year, herds of reindeer, and the northern rhinoceros and elephant, which during their winter migrations to the plains probably tra-

versed the very ground occupied by the hippopotamus and the southern rhinoceros in the summer. He said he was not aware that the hippopotamus had been found north of this supposed great watershed of the Rhine ; its furthest northern limit being, he believed, Kirkdale. The drainage of the vale of Pickering, in which the cave is situated, was the Humber. The mouth of the Severn could not then have been far from that of the Rhine, if it did not flow into it, and therefore the argument affecting the one would affect the other. This elevation appears to have been succeeded by a considerable depression, attended by a corresponding lowering of temperature, which was probably the period of the final disappearance of the great Mammalia, and of the predominance of the reindeer in the pre-historic deposits, and this depression by a moderate elevation both of level and temperature. How long ago these changes took place he knew not, but man certainly existed during a portion of them. No diluvial theory will account for the phenomena he attempted to explain, the tendency of deluges being to confuse and roll up evidence into an indistinguishable mass; whereas the more the evidence he relied on was examined the clearer it was shewn to be.

A paper "On the Formation of Caves" was read by Mr. JAMES PARKER, who illustrated his subject by some carefully prepared drawings of the great cave at Wookey Hole, which he had himself explored for a considerable distance.

The Excursion.

In the course of the morning the members availed themselves of the excellent arrangements made by the courtesy of Mr. Clarke, at the brewery, for visiting the remains of the Roman Potters' Kiln.

In the afternoon the members proceeded to

The Parish Church,

under the guidance E. A. Freeman, Esq.

MR. FREEMAN observed that the building had undergone so many changes that it was difficult to say how much was old and how much was new. The tower was a very fair specimen of the Taunton type, and was crowned by a spire, which had either never been finished or the top of it had been broken down; in that, however, local knowledge was required. It was rather remarkable that both in this county and in the county of Dorset they had found a great number of these unfinished or destroyed spires—for instance, St. Mary Redcliff, Bristol, Yatton, Minchinhampton, and others; in other parts of the country they were few in number, but he particularly mentioned one at Naseby, Northamptonshire. With regard to the roof of the church, it was one of the finest if not the finest carved roof in the county. Wooden roofs were not mere make-shifts, but they shewed a preference to vaulting. The roof of that church did not appear to have been painted or gilded as was commonly the case, and he never saw a carved roof carried out to such an extraordinary degree of splendour.

The members then proceeded to

Doultling,

where they were hospitably entertained at the vicarage by the Rev. J. Fussell, who also exhibited a very interesting and valuable ancient British urn, found in the encampment at Small Down in the neighbourhood.

In the course of his remarks MR. FREEMAN said the history of

Doultling Church

was pretty plainly written in its own stones. It was curious as illustrating the changes that had taken place in several churches in the county. Many of them doubtless knew how very common the cross form was in the early period of Somersetshire architecture, and how in many cases that form had changed into another—St. Cuthbert's at Wells, and St. John's at Glastonbury, for instance. The nave of the church they might call late Norman or Early English—it was transitional, or the turning point from Romanesque to Gothic, and was pretty perfect. The tower must be a little later, though carrying out the same design; it was octagonal in form, and was a good plain example of English thirteenth-century work. A good deal of trouble had been taken, without destroying the tower or altering its character, to adapt it to a later and more prevalent style. A battlement had been added, and a stone spire, but it was somewhat stumpy. The chancel had been rebuilt, with a decorated window, transitional from the Geometric to the Flowery. He pointed out the squints or hagioscopes. The central tower had been raised and supported by angular buttresses. The transepts had been recast within and without. There was a very fine Perpendicular porch which was a fair reproduction of the

old one, the original stones of which might be seen in the vicarage garden. He assumed that the old porch must have been in a most dangerous state, and that it was quite impossible to repair it, or he could not suppose they would have sacrificed the old stones.

Mr. J. H. PARKER then conducted the members to

The Barn,

the characteristic features of which he explained, observing, that the Barn at Doultong is a very fine one of early character; the walls are thick and the buttresses more massive than usual. It has not much ornament, but what there is bears the usual stamp of the fourteenth century. The character is earlier than that of either Pilton or Glastonbury, and the date is probably about the middle of the fourteenth century; the roof is also good plain timber-work of the same period, though repaired in places.

The Doultong Quarries,

so extensively used in Glastonbury Abbey and Wells Cathedral, were then visited under the guidance of MR. CHARLES MOORE, F.G.S., who pointed out the chief geological features of the formation.

The Ordinary at Shepton Mallet at half-past five was well attended, and, in the evening, the meeting was resumed for the reception of papers.

The Evening Meeting.

MR. THOMAS SEREL read a paper on "The Strode Family," which is printed in Part II.

THE REV. PREBENDARY GRAY contributed an interesting series of Notes from the Church Records of the Parish of Pilton, which commence with A.D. 1503.

THE REV. F. BROWN read extracts from the Autobiography of a Somerset Quaker Farmer, of the name of Whiting, written during the Civil War.

MR. C. MOORE, F.G.S., of Bath, delivered an able address on

The Geology of the District.

The palæontology, the ancient natural history, of the district, he said, exceeded in interest that of any district in England. The Carboniferous limestone was very full of organisms, and the coal beds were very full, and when they came into the upper beds of the Keuper they had organic remains in the greatest abundance. He cited instances of his discoveries at Hollwell, in the neighbourhood of Frome, and the Vallis where a few yards of earth contained a million specimens of organic remains. With regard to the mineralogy of the locality, they had the Ham iron and manganese mines very close to them. Although there was iron to be found there it was not in such quantities as to pay for working, the manganese being much more plentiful. He had made some explorations at Mells, with the view of finding lead ore; the very first blow of the pick axe brought to light a piece of what they

were looking for, and if it increased as it had done, and he hoped it to do, the yield would be very good. Mr. Moore concluded by giving greater details as to the contents of the various beds around Shepton.

MR. J. MC MURTRIE, of Radstock, read a paper on

The Coal Fields of Somersetshire.

He stated that the Somersetshire coal field, so far as at present known, extends from Bristol to the neighbourhood of Frome on the one hand, and from Bath to the Mendip Hills on the other, and comprises in all an area of 150 square miles. I must not be understood to affirm that workable veins of coal are available over the whole of the territory included within the limits referred to, for unfortunately, owing to the great depth at which some of the veins lie, and various other circumstances, much of the area may be set down as practically unproductive. Nor on the other hand am I to be understood to limit the coal measures of Somersetshire to that portion of the county to the east of the Mendip range in which coal has hitherto been exclusively worked, for there are grounds for supposing that west of the Mendip coal measures may one day be found. A remarkable feature of this coal field is the number of more recent formations by which it is overlaid. In most of the great coal fields of this country the coal strata are to be met with on the surface, and I believe I am correct in stating that in none of the other districts now worked, are coal measures overlaid by anything more recent than the new red sandstone. But in the greater part of Somersetshire they are buried beneath three distinct formations, viz., the oolite, the lias, and the new red sandstone, through one or more of which most of the shafts have had to be sunk. Of course coal may be met

with under any formation more recent than itself, and it may ultimately be worked beneath even later formations than the oolite, but at present Somersetshire has taken the lead in this department of exploration, and in this particular, so far as this country is concerned, she may be said to stand alone. The Somersetshire coal field takes the form of an irregularly-shaped basin, the deepest point of which appears to be within the parish of Radstock. The section from Braysdown towards Shepton Mallet, like that from Farmborough to Leigh-on-Mendip, shows a steady rise in the coal measures on each side of Radstock, so that beneath Radstock they probably attain their greatest depth. Vertically they may be separated into two great divisions, each of which may be in turn subdivided into two distinct series of veins. The upper division comprises all the coal strata above the Pennant rock. The lower division includes all that intervenes between the Pennant and the millstone grit. First, the upper division. This, as already stated, consists of two distinct series of veins, called the first or Radstock, and the second or Farringdon series. They are separated from each other by about 790 feet of stratification, near the middle of which there occur certain well-defined beds of red shale, about 250 feet in thickness, which form a well-marked line of division between the two series. The Radstock series consists of a series of seven veins, six of which, varying from fourteen to thirty inches in thickness, are commonly workable. The Farringdon series includes five veins of from twelve to twenty-eight inches in thickness, one or more of which are generally unworkable. Second, the lower division. This, like the upper division, is I think clearly separ-

able into two distinct series of veins, which may be called a new rock, and the fourth or Vobster series. Hitherto they have been classed together, but when we consider that at least 400 feet of unproductive strata separate the lowest workable vein of the one from the highest workable vein of the other, that the two are probably not conformable, and that the character of the coal obtained from each in an industrial point of view is totally different, we are, I think, warranted in regarding them as distinct members of one great division. The new rock series consist of twelve or fourteen veins of from one to six feet in thickness, which is greater than that of all the other three series put together, but owing to its great inclination it soon passes below the depth to which mining enterprise has hitherto penetrated, so that much of its mineral wealth is being left for future generations. In the Vobster series only five veins have hitherto been found sufficiently continuous to acquire general recognition, but numbers of fragmentary veins are associated with them, and as the strata recede from the disturbance and contortion of the Mendip Hills, many of these may be found to exist in a workable state. The coal obtainable from the three upper series is best adapted for household purposes, and it furnishes a large proportion of the supply for the southern counties. That raised from the lower series on the contrary is admirably adapted for the manufacture of iron, and it is likely to lead to the developement of a new source of local industry. Having thus briefly described the general features of the Somersetshire coal measures, I will endeavour to give a general idea of the depths at which the different strata referred to probably occur.

Thickness of overlying formations as proved at	FEET.
Old Pit, Radstock	141
Depth from new red sandstone to first series ..	411
Thickness of stratification containing first series	351
Depth from first to second series	765
Thickness of stratification containing second series	282
Depth from second to third series	4026
Thickness of stratification containing third series	1248
Depth from third to fourth series	402
Thickness of stratification containing fourth series	195
Depth from fourth series to millstone grit ..	1140
<hr/>	
Total	8961
From which if we deduct the thickness of the overlying formations	141
<hr/>	

There remains .. 8820

or one and three quarter miles nearly as the thickness of the coal measures alone, which is probably greater than that of any other district in this country. With regard to the great thickness of unexplored strata separating the upper from the lower division, I may explain that this part of the field being overlaid by a thick covering of lias and new red sandstone, surface explorations are impracticable, and I believe none of the adjoining pits have penetrated far into it, but I am strongly inclined to think that coal may one day be found there. It has been surmised that it may contain veins corresponding with those of the Bristol coal field. Much has been said of late years as to the probable duration of our coal fields, and it will be satisfactory for those present to know, that in Somersetshire at least their exhaustion is still far distant. Mr. Greenwell, formerly of Radstock, has estimated the quantity of coal remaining in the county within reasonable depth at about

twelve hundred millions of tons. This at the present rate of consumption would last for 2000 years, and even allowing for a considerable increase in the rate of consumption, there is enough left to serve for a period useless for us to estimate. The coal measures of Somersetshire contain an immense variety of well-preserved fossils, chiefly vegetable. As we descend in the strata they become less plentiful, and in the lower measures good specimens are rare. Hitherto I have been unable to detect at Radstock any trace of animal remains, but a more careful search might lead to their discovery. At Camerton, two specimens of what I believe to have been a species of trilobite have been discovered. For several years the tendency of scientific opinion has been against that creed of the earlier geologists which held, that in earlier geologic times more active agencies must have been at work than those which exist now. But the tide seems at last to have set in in the contrary direction, and I find Sir Roderick Murchison at the recent meeting of the British Association holding fast to the old theory that the early history of the earth must have been one of much disturbance. And no one can have spent much time amongst the coal measures of Somersetshire without coming irresistibly to the conclusion that the old theory is the correct one. The time of their deposition and the period which elapsed between their formation and the age of the new red sandstone must have been one of convulsion and disturbance. Innumerable faults of great size have broken up and distorted the strata to a degree utterly inconsistent with any theory which would reconcile the past with the present. The veins are nearly all level in some localities, in others they are highly inclined. At some points they are vertical, and in others they have even been turned upside down, as at Newbury

and Vobster. In the instance last mentioned the dislocation would appear to have occurred during the upheaval of the Mendip Hills, for not only have the coal measures been folded back upon themselves, but they have actually carried with them immense masses of mountain limestone, which are now to be found more than a mile from the parent rock. Scarcely a day's exploration passes without witnessing the discovery of some contortion, which cannot be accounted for by any thing in existing nature, and which even the principles of geology seem unable to explain. Surely no one can investigate these or similar phenomena without arriving at the decision that the early history of the earth, like the early history of nations, must have been one of much disturbance.

Second Day : Excursion.

The Members and their friends visited the following places in the Excursion.

Pilton Church,

which according to MR. FREEMAN, is in the transitional or not very advanced Early English style: the eastern bay probably the original chancel, the Perpendicular clerestory windows inserted, and the chancel added or rebuilt. The roof is a very fine one of its kind, with a low-pitched tie-beam. The pulpit also is a good specimen of its style and date, A.D. 1618. The pulpit-cloth is especially deserving of notice, having been made from an old cope. The Rector, the Rev. Prebendary Gray, stated that the chancel was said to have been built by Amberson, Precentor of Wells.

MR. PARKER said that

The Barn at Pilton

is one of the finest in the country ; it is lighter than either of those at Doultong or at Glastonbury, and probably rather later in date, but still in the style of the fourteenth century, and probably dates from the latter part of it. There is more ornament than usual, and of very good character ; the gables are terminated by finials consisting of bunches of foliage, well carved. Near the point of each gable is a small window of two lights with pointed heads, but under one semicircular dripstone, and enclosing arch, affording one of the many indications that the form of the arch is no guide whatever to the style or date of a building, but is always dictated by necessity or convenience. The flat arches over the doorways indicate the same thing. Under each of these small windows, a little lower in the gable wall, is a carving in the panel of one of the emblems of the Evangelists, shewing that the barn belonged to the church. The loopholes are particularly good, and have rear-arches to them, like windows. The roof is also original, perfect, and very good. This old barn is a far finer building in every way than many modern churches.

The manor-house is of too late a date to be considered as archæological.

Pyll Church

is a transitional Norman church altered into Perpendicular, but the churchwardens had been too busy with the building to enable them to make much of its history. The corbels of the old roof remained, and at the entrance to the porch is a holy-water basin perfect, which is of extremely rare occurrence.

Ditchheat

was the next place visited, Mr. FREEMAN directing particular attention to the church, which is an exceedingly fine specimen of architecture, being in the form of a cross, with nave, chancel, north and south aisles, and a tower sixty feet high. It is dedicated to St. Mary Magdalene. There was, said Mr. Freeman, a good deal of history and a good deal of art about such a church as that. It was of the early style, but had been much changed, more so than the churches of Pilton and Doultong, but not so much as St. Cuthbert's (Wells), St. John's (Glastonbury), and others. Mr. Freeman shewed what had been done to the church at various periods, and it appeared that one of the principal of the altering parties was Dean Gunthorpe, in 1472. One feature to be remarked was the east window, the tracery of which was of a pure geometrical design; the outline was a very good one, and the centre figure was not the circle seen in some churches, nor the square which was common in Germany, but a triangle; the whole of the design was carried out with boldness. The fittings-up of the choir were worthy of attention and also of preservation. They were not equal to those glorious fittings which had been taken away from Wimborne Minster; but as an example of the ancient fitting-up of the choir, they were really very valuable. The screen, the stalls, and the whole of the fittings, the date of which was 1630, were just the sort of things he would not imitate but would preserve, for they were valuable historically as shewing the retention of the older styles of the first half of the seventeenth century. He noticed two very good hagioscopes, or squints, by means of which people in the body of the church might see and hear what was going on at the high

altar. The roof of the church was weak compared with the roof of other churches in the county. In that church as usual the original choir was under the tower, and he was strengthened in that view by the fact that there were two little corbels by the church arch, which could not have served any other purpose except to support the roodloft. The church, urged Mr. Freeman, was one very well worth study. In regard to the hagioscopes, Mr. Parker expressed his opinion that they did away with the objection commonly raised to the cruciform plan of a church, and by means of them persons could see and hear all that was going on at the altar.

Contiguous to the church is the

Manor House,

about which and its former possessors the REV. HILL WICKHAM, of Horsington, gave some particulars. The manor-house and the church formerly belonged to the Abbey of Glastonbury, and they were subsequently granted to Sir Ralph Hopton, who was one of the best specimens of a cavalier of the time of Charles I., a consistent Royalist, and a moderate man, who avoided all the excesses that were too frequently committed by King Charles's party. Mr. Wickham gave a history of each possessor of the manor-house, and of his doings in connection with national affairs. The manor-house is of the time of James I. in part, but the larger part of the time of Charles II., and therefore it is not archæological.

Evercreech Church

had been so much repaired and added to, that with the exception of the tower, there was little for the archæologist to notice. The tower was so like that at Wrington, that

MR. FREEMAN thought it must either have been an imitation, or more probably the first attempt of the architect who afterwards built the beautiful church of Wrington.

Chesterblade Church

is small, but interesting and curious. The chancel has unfortunately been rebuilt on a smaller scale, and deprived of all interest; but the walls of the nave are Norman, and the doorway is of that style, with alterations in the Perpendicular style. The east wall of the nave has the Norman coping preserved, with the two springers or corbels at the ends, with curious carving; this feature is very rare, almost unique. Norman coping of any kind is very rare, and here it is remarkably perfect, and the springing-stones being left, with part of the coping cut in the same stone, there can be no doubt as to the date of it, probably about the middle of the twelfth century. The chancel-arch is Perpendicular, cut through the Norman wall when the chancel was rebuilt. On the south side of it stands a Perpendicular stone pulpit or reading desk; it is in the form of a desk with shelf and panelling, but may have been used for both purposes. As its character is of the time of Henry VIII., it may possibly have been a desk for the Bible immediately after the Reformation.

West Cranmore Church

has a fair tower of the Taunton type, giving the turret rather more prominence than usual. The vaulted roof good, also the tower-arch.

At Cranmore Hall,

East Cranmore, the seat of J. M. Paget, Esq., the father of Major Paget, M.P., the President of the Society, Mr. Paget, his family, and several friends gave the party

a hearty welcome. After spending a few minutes in strolling about the extensive grounds, they were called together to hear a paper read by the Rev. W. A. Jones (for the Rev. T. Hugo), "On the last Survivors of the Religious Orders in Somersetshire."

The large company assembled then partook of the sumptuous repast provided for them by Mr. and Mrs. Paget. On the motion of J. C. SOMERVILLE, Esq., of Dinder House, the cordial thanks of the Society were presented for the kind and cordial reception with which they had been favoured.

On the motion of F. H. DICKINSON, Esq., seconded by the Rev. Canon Meade, it was resolved "That the members place on record their sincere and deep regret at the absence of their Secretary, the Rev. F. Warre, through illness, and likewise the expression of their earnest hope that his health may be so far restored as to enable him to continue in future years the good services for which the Society has been so deeply indebted to him from its foundation." This resolution, carried by acclamation, was suitably acknowledged by Mr. Warre's nephew, F. W. Cornish, Esq., of Eton College.

The health of the President, proposed by W. AYSHFORD SANFORD, Esq., was duly honoured, and the best thanks of the members presented to him for his able services.

The cordial thanks of the Society were also presented to W. C. Walker, Esq., of Shepton Mallet, and to the Members of the Local Committee for the valuable assistance rendered in the arrangements of the meeting.

Third Day: Excursion.

The excursionists were conducted over

Maesbury Camp

by the REV. W. A. JONES, who, in the absence of the Rev. F. Warre, explained the general features of the earthwork. From thence they descended to

Chilcot,

where there are remains of a small manor-house of the time of Henry VIII., in which there is a mixture of the older plan and arrangements of the mediæval period, with the later ones of Elizabeth, which are nearly the same as those of modern houses. The entrance to the hall is by a lofty doorway, high enough for a man on horseback to ride in and dismount in the screens, which was not very unusual in mediæval halls; but there is no back-door for the horse to be led out into the servants' court, as was usual; and the kitchen is at the opposite end of the hall, quite contrary to the mediæval plan. It also had a room over it, which is not usual in mediæval kitchens in a house of any importance. The kitchen is usually at the same end of the hall as the screens, from which it is separated by the buttery and pantry, and is a semi-detached building with its own roof. But the arrangement of a small house was often different from that of a large one, and the caprice of the owners must also be considered. In Elizabethan houses the situation of the kitchen is often reversed, as here, and the alteration was sometimes made in houses formerly built but adapted to the fashion of that period.

Croscombe

was the next point of interest. The church was examined under the guidance of MR. FREEMAN.

Croscombe Church

consists of a nave, chancel, and side aisles, a tower and spire. The general architectural features of the building differ from those prevailing in the district. The windows are flat headed, and such as were not usually placed in a very prominent position. The clerestory windows also are not characteristic of the neighbourhood, where they are generally narrower and more pointed. The roof comes nearer to the local type, because it is a coved roof, though not the usual coved-roof, but a pointed one. It is, however, singularly fine and in good preservation, and Mr. Freeman hoped it might remain there for ages to come. Several most interesting parish records and old books were exhibited to the members.

Mr. PARKER gave the following account of the domestic architecture in the village :—

This village is full of old houses, chiefly of the sixteenth and seventeenth centuries. The ancient hostelry is a very good example of a

Village Inn

of the fifteenth century, with a remarkably good bay window for people to sit and carouse in, while they could see all that was passing. It is square, with a flat stone ceiling richly carved, with a shield supported by angels in the centre; this probably had upon it the arms of Glastonbury Abbey, to whom it is said to have belonged. Along the hollow moulding of the cornice is a series of scrolls for inscriptions, but these as well as the arms are defaced.



THIRD EXCURSION.—CROSCOMBE ARCHITECTURE. 29

The window-frames are of wood, but they are original, and are let into a framework of stone with a sloping sill, and with very curious buttress-shafts at the cornices detached from the frames on a very singular plan. The ceilings of this room and one adjoining to it are original, and well moulded. These two rooms are separated by a very thick wall, also original, with the wall-plates of the ceiling let into it on both sides. The fire-places are plain but original, and there is a good octagon chimney on the gable. One of the windows has the dripstones carved with two heads, one a mitred abbot, the other apparently a fool : probably some history attaches to this.

Another house off the road, now a dissenting chapel, is the hall of a manor-house of the fifteenth century, with two Perpendicular windows on each side, a front and back door, and the marks in the end wall of the buttery hatch and pantry door. There is a good corbel between the windows, apparently for lights ; it is a stone shaft corbelled out from the wall, and has the same shield of arms upon it as seen also on the carved ceiling of the nave of the church.

After having visited the church at Dinder, the members were hospitably entertained by the Rev. T. J. Bumpstead, at the rectory, and at Dinder House, the residence of J. C. Somerville, Esq.

The cordial thanks of the members having been presented to Mr. and Mrs. Somerville, and to the Rev. T. J. Bumpstead, for their hospitality, and likewise to the officials for their services, the meeting was duly closed.

The Eighteenth Annual Meeting.

THE Eighteenth Annual Meeting was held at ILMINSTAR, on Tuesday, August 21st, 1866. In the absence of the President R. H. PAGET, Esq., M.P., of Cranmore, the chair was taken by F. H. DICKINSON, Esq., on whose nomination R. T. COMBE, Esq., of Earnhill, was unanimously chosen as President of the Society for the current year. Mr. Combe opened the proceedings by referring to the various objects of antiquarian interest to be found in the district, and afterwards called upon the Secretary, the Rev. Wm. ARTHUR JONES, M.A., to read the

REPORT OF THE COUNCIL.

The Council have the pleasure to Report that the Society, now in its eighteenth year, continues to secure the various objects which its members have hitherto aimed at. As they are that very much will continue to be done in order to accomplish the objects which the Society contemplates, the Council are not without hope that every year progress is being made, and the foundation is being laid for more extended and permanent success.

The Council have for their object to various districts in the County, have they derived from the means of directing a course of study, research in antiquarian and historical in-

terest which would otherwise have remained unnoticed, and, through neglect, would have been allowed to fall into decay. Many of the beautiful churches, which the munificence, skill, and piety of our forefathers reared, have been preserved from unmeaning "restorations," and the knowledge of, and taste for, archæological investigation and natural science have been more generally diffused.

"In the Department of Natural History, the Museum of the Society has come to occupy a most honourable and prominent position. By the scientific labours of two of the Members, and the artistic skill of your Curator, the collection of the Mendip Cave Bones, now in your possession, has served to illustrate in the fullest manner, one of the most interesting periods of the primæval history of the earth. The monograph by Mr. W. Boyd Dawkins, and Mr. W. Ayshford Sanford on the Pleistocene Mammalia, which is in course of publication by the Palæontographical Society, is for the most part illustrated from specimens in your Museum. By the courtesy of the Council of the above Society, arrangements are being made to supply the Members with first-class lithographs of all the principal specimens of cave bones in the Museum. As, however, the number of copies at our disposal is limited, the only plan open to the Council is to distribute them to Members in rotation in the order of application. It will be necessary to charge 5s. for each set thus supplied, to meet the expenses incurred in printing and postage.

"The Council are sorry to report that in consequence of his continued indisposition, the Rev. F. Warre, one of the oldest and most valued officers of the Society, has found it necessary to tender his resignation as one of your general Secretaries. While they deeply regret the cause which

thus deprives the Society of his varied antiquarian knowledge and skill, they would express their sincere hope that he may again be able to resume his wonted place and influence amongst us, and they desire to place on record their deep sense of the great service rendered by him to this Society and to the science of archæology.

“The attention of your Council has been directed to the importance of securing a permanent record of the peculiarities of dialect which prevail in different parts of the County of Somerset. A scheme will shortly be submitted by which this object will be effected in such a manner as to be at the same time a service to the philologist and the historian. The Council have the pleasure to acknowledge the courtesy with which Mr. Henry Norris has placed his valuable manuscript glossary of Somersetshire words at their disposal. To complete the work they earnestly solicit the prompt and cordial support of other gentlemen in various districts.

“Among the valuable donations received during the past year, and which are duly recorded in the volume of proceedings now in the press, the Members will not fail to notice the series of rare and costly antiquarian works presented by the Rev. F. Warre. These, and other works on archæology and natural science, may always be consulted at the Museum, and on application may also be taken out by Members for special purposes.

“In conclusion, the Council would urge upon Members the importance of their exerting themselves to increase the number of subscribers, in order to improve the funds of the Society and to extend the sphere of its power and influence.”

The Treasurer, R. G. BADCOCK, Esq., presented the following Financial Statement:—

TREASURERS' REPORT.

33

The Treasurers in account with the Somersetshire Archaeological and
Dr. Natural History Society. Cr.

1865.	£ s. d.	1865-6.	£ s. d.
To Balance of former account	18 10 4	By expenses at Annual Meeting	
„ Subscriptions	145 10 6	at Shepton Mallet ...	11 3 1
„ Entrance Fees	9 10 0	„ Advertising	1 17 6
„ Illustration Fund	1 1 6	„ Stationery, Printing, &c. ...	6 17 1
„ Beard Collection	1 0 0	„ Coal, Gas, &c.	8 11 7
		„ Curator's Salary, to August	
		3rd, 1866	35 0 0
		„ Postage, Carriage, &c. ...	5 0 4
		„ Sundries	18 4
		„ May, balance of account for	
		printing Vol. XII. ...	34 4 3
		„ Wertheimer and Co. printing	
		illustrations	1 5 0
		„ May on account of printing	
		Vol. XIII	20 0 0
		„ Rent to Midsummer, 1866,	
		(1½ years)... ..	39 15 0
		„ Insurance	15 0
		„ Repairs, &c.	12 9
		„ Excavations at High Ham,	
		Drayton, Pitney, &c., in	
		1861	4 5 3
		„ Balance	5 7 2
			<u>£ 175 12 4</u>
	<u>£ 175 12 4</u>		

August 20th, 1866.

H. R. G. H. J. & D. BADCOCK,
Treasurers.

Audited and found correct
WM. P. PINCHARD.

The PRESIDENT proposed that the Report now read be adopted. F. H. DICKINSON, Esq., in seconding the proposal, expressed the deep regret felt by all the members of the Society on the retirement of the Rev. F. Warre; it was impossible to over estimate the value of the services rendered by him to the Society. Having referred to the interest which attached to the dialects of different parts of the county, and the importance of publishing a good glossary of Somersetshire words, Mr. Dickinson urged upon the Members of the Society to aid the undertaking to the utmost of their power. He then called attention to the account of the Abbey of Glastonbury, lately published by Professor Willis, as a most valuable contribution to the history of the county.

The Reports were accordingly adopted.

On the motion of WM. AYSHFORD SANFORD, Esq., seconded by CHARLES NOEL WELMAN, Esq., the Vice-Presidents were re-elected with the addition of R. H. Paget, Esq., M.P., and the Rev. F. Warre.

On the motion of F. H. DICKINSON, Esq., seconded by E. A. FREEMAN, Esq., it was unanimously resolved :—
“That this Society accepts with great regret the resignation of the Rev. F. Warre, as one of the General Secretaries; and that the best thanks of the members be presented to him for his long, able, and most valuable services to this Society.”

J. H. Parker, Esq., cordially supported the proposition and bore testimony to the great value of the sound information which Mr. Warre had always given them on the Earth-works which abounded in the county. The knowledge which he had derived from Mr. Warre had been of the greatest service to him in working out the history of the Architectural details of Windsor Castle, and also in his investigations of the Remains of the Ancient Rome.

Messrs. Badcock were re-elected as Treasurers.

On the motion of R. G. BADCOCK, Esq., seconded by F. H. DICKINSON, Esq., the Rev. Fred. Brown of Nailsea, was unanimously elected as one of the General Secretaries. The Rev. Wm. Arthur Jones, and W. F. Elliot Esq., were re-elected.

The Local Secretaries were re-elected, and the following Members of the General Committee :—

Dr. Metford, Dr. Kelly, Dr. Pring, Mr. Alford, Mr. J. F. Norman, Mr. Perkins.

On the motion of E. A. FREEMAN, Esq., seconded by R. N. GRENVILLE, Esq., M.P., it was resolved :—“That the next Annual Meeting be held in the City of Bristol.”

The CHAIRMAN then called upon

The Rev. Mr. GOWRING, who read the following paper upon

Ilminster Church and Grammar School.

In the few observations which I have the honor of making to this meeting, it would seem presumptuous, in the presence of so many persons who are authorities on these subjects, to say anything either about the history of the town or the architecture of the church. But I may perhaps be allowed to lay before you some facts which local facilities have enabled me to glean.

We have had in this town preserved for us parochial records dating at least as far back as the year 1543, and continued, with but few exceptions, to the present time. The records serve, as in many other instances, to throw some light upon the history and manners of our predecessors. There is one custom prevailing in this parish that seems to me very singular, though, I dare say, that there are gentlemen who will be able to point out similar usages in other places. The circumstance to which I allude is the tenure of pews in the parish church. I find that as far back as the year 1553 an aisle was changed for a seat—that the seats were sold, and are described in legal documents as being late in the possession of such a person, as being before our Lady of Pity, or the image of St. Christopher, or as where the Holy Loaf was delivered, or again as being by the Old Stocks. And in the churchwarden's accounts year by year there is a list of pewholders with their respective payments, as well as an allotment of pews, on the occasion of deaths, change of tenants, or owners, &c. Their rents seem to have been applied to the expenses of the church and parish, and in the year

1656 they were first, it would seem, supplemented by a rate. There was another source of revenue which sounds strange to our modern ideas. Archæologists are of course familiar with it. It is the profit made by the churchwardens on the ale they sold at Whitsuntide—their profits vary from 35s. to the comparatively large sum of £6 6s. 8d. Other sources of revenue are the price of land for burial, and one entry, namely, “received of John Wood for ringing of his knell 12d.,” seems to indicate considerable forethought on the part of that doubtless worthy individual.

If the sources of revenue were numerous, so likewise were the disbursements. The windows, and the lead, and the bells of the church, were most formidable items. The windows in the church tower, now happily replaced by perforated Ham-stone, date as far back as 1640. Of the chimes we have a record in the year 1639, and they are mentioned as requiring expenditure. In 1647 the churchwardens expended money on an hour-glass, but 10 years later seemed to think that half that time would suffice, for they bought a half-hour-glass. Again they paid very regularly through all the troublous times for ringing the bells on the 5th of November, and with strict impartiality. In 1639 they rang for the King’s coronation. Later on they rang for a victory attained ‘over against Worcester;’ in 1651, on the day of thanksgiving for the Lord Protector’s deliverance; in 1656, when his order was received touching a proclamation that was read at Cross; in 1658-59, when the Lord Protector Richard was proclaimed; and in 1660, for ringing in his Majesty’s declaration and proclamation; in 1661, for ringing for a plot discovered at Gloucester; in 1666, when the Dutch were routed; and considerably later, in 1716, when the rebels were routed at Preston. In these later days to the sound of the bells

the roll of the more warlike drum was added. Once too they rang on St. George's Day, 1668. Powder and matches are often mentioned. On one occasion 18lbs. were used in the 'days of triumph;' on another for the muster at Crewkerne. Once too in the year after the Restoration, the churchwardens bought a hundred and a half of faggots to make a bonfire. Beer, rather than cider, was then the favourite beverage, for there are three entries of payments for beer at the coronation, whilst the doubtless royalist churchwarden scrupled not to repay himself for loss during the commonwealth, as is seen by the following entry—"For beer, fire, and candle light, which was left unpaid to me when Lieutenant Browne kept guard at my house, 1661-2." Nor was Ilminster exempt from ship-money, for payment is made to one who rode to Wells concerning it. Wanderers of all kinds met with relief. Now it is some Irish, now some soldiers with a pass, now a distressed minister, or a distressed gentleman, and very frequent entries are made for persons who had come from Turkey, once to some who said that they had been slaves in Turkey. One curious entry is that of a salary of 10s. to a man for whipping dogs out of the church. The lower animals suffered more fatal, if not such ignominious treatment. Like the Pretender a price was set upon their heads. Otters, foxes, polecats, hedgehogs, sparrows, grays, whoops, jays, woodwalls, fitchets, met with an untimely end. Thus profit could be combined with love of the chase, and the heroes, while they counted not the scalps but the heads of their enemies, could reflect on the service they had rendered their country.

The last entry of disbursements is the last that I shall lay before you, "for writing our book and passing this account, 6s. 8d."

Next in importance to the church is the old Grammar School. It stands on the site of one of the four chantries or rather chantry houses that are known to have existed here ; and it not improbably is the successor to something more than the mere site, for the priests who resided in the chantry houses, besides their ministerial functions, were engaged in instructing children of the town.

It is well known that the Manor of Ilminster was part of the possessions of the Abbey and Convent of Muchelney. The abbots made grants of property to chantries. One lease for the short space of 900 years, and dated 1458, conveys two houses on the north side of the churchyard—the present site of the school—as residences for the chaplains. To this were added Rippe's Mill at Horton in 1528, and Morley's Land at Winterhay in 1530, for their maintenance. At the time of the reformation some 24 persons, among whom we meet with the historic names of Speke, Poulett, and Wadham, were trustees of these leases; and, when, in the first year of Edward the 6th, chantries passed into the possession of the crown, and the crown sold the chantries in this place to Henry Kelway, Esq., of Berry Pomeroy, and Wm. Leonard, of Taunton, these, in their turn, and in order that a school might be founded, sold their interest for £125 to another body of trustees including some of the elder body of trustees. The letters patent, showing the foundation, dated June 3, 3rd Edward 6, 1549, contain an exemplification of two deeds, and then proceed to say that the said Humphrey Walrond, and Henry Greyfield, "tendering the virtuous education of youth in literature and godly learning, whereby the same youth so brought up should better know their duty as well to God as the King's Majesty (note here the almost unconscious statement of the truth by making the sovereign

the representative of the nation) and for divers and other honest and godly considerations did assign all their interest and terms of years in the premises unto the said John Balche (and others before named) from the Michaelmas preceeding until the end and term of all the years yet to come in the premises upon such conditions as in the present deed thereafter ensued, namely, first, that the said John Balche, and others 'after Michaelmas, then next, should, by their discretion, or by the discretion of the more part of them, provide and get one honest and discrete person of good behaviour, name, fame, conversation, and condition, to be a schoolmaster, which shall freely instruct, teach, induce, and bring up, as well in all godly learning and knowledge as in other manner of learning, all such children and youth as shall be brought to him to the same intent and purpose, according to the tender wit, and capacities, of such youth and young children as the same schoolmaster from time to time shall think meet and convenient,' and they were to appoint the schoolmaster one tenement, called the Cross House, for his residence."

A yearly meeting was to be held by the trustees on the first Sunday in October, when a bailiff was to be appointed to receive the rents, keep in repair the Cross House, make a yearly account and deliver the moneys remaining to the trustees, who were to put such moneys into a convenient coffer with four locks and four keys, to be bestowed for the discharge of the king's silver, and for the mending and repairing of the highways, bridges, watercourses, and conduits of water, whereby the inhabitants of Ilminster were, or should be, chargeable.

Minutes of all the proceedings of the Trustees have been preserved. The first heading is "The account of the lands purchased for the school in Ilminster." At the end is a

schedule of debts owing by the parish for the purchasing of this land upon this account. The total is £10 19s. - One of these debts was to Humphrey Walrond for devising of the assurance. In 1550 a gift of 6s. 8d. by Mr. Walrond is mentioned. The schoolmaster (who has had 25 successors) is first mentioned in 1558 as Sir Robert—"sir" being a title then alike shared by the clergy with knights and kings. The schoolmaster's salary at first was £7 a year. Afterwards it was augmented to £9, then to £40, at which it remained for many years. In 1567 10s. was paid for mending a watercourse, and 5s. for a dictionary. In 1574 Mr. Walrond was paid 14s. for riding to Oxford to get a schoolmaster. In 1776 a writingmaster was paid £4 a year. The trustees seem from the commencement to have managed the affairs with prudence. In 1606 they purchased land at Bridghampton. In 1609 they bought a considerable estate at Swanage for 1000 merks or £666 13s. 4d. Other purchases of land were made in the same century. In 1665 the trustees gave £3 for teaching several poor children to learn English, and in 1709 payments were made for teaching 40 poor children of Ilminster to read, write and to cast up accounts. For the same purpose in 1765, a regular master was appointed. This is still continued; and payments are made to the national school and to a dame's school at Horton. The trustees have continually laid out moneys for the other provisions mentioned in the foundation deeds, and have occasionally built various bridges in the parish. No record of the number of boys at the school was kept till the commencement of the present century, except that in 1761 it is stated in the minute book that there were thirteen boarders and four free boys, and in 1863 eighteen boarders and six free boys. At the present time the number of foundation boys is larger than has ever been known.

Besides the Church and the School there is but little, I fear, in this town of antiquarian interest. One place bears the suggestive and warlike name of Behind Butts, and another the more peaceful title of Strawberry Bank. Several houses with the quaint gable ends may still be seen, and in one house, which is an old chantry house on the west side of the churchyard, there are still the remains, I suppose, of a credence table and the pedestal of a statue; and before the alterations made in it some few years since, there were immediately behind the fire place in the kitchen, and in the room above it two small chambers adapted for concealment.

There is also attached to the house that favourite tradition of a secret underground passage. We might have had more objects of interest to show had it not been for a great fire in 1738, when despite the "Ingions," which the parish records tell us were paid for in 1722, and despite the presence of a whirlgog in 1724, so much of the town was destroyed that thirteen persons were excused their rates.

MR. JOHN BATTEN, then read a paper "On the Wadham Family."

MR. CHARLES MOORE, F.G.S., then read a paper "On the Middle and Upper Lias of the South West of England," published in Part II.

The Parish Church of Iminster.

The tomb of Nicholas Wadham, the founder of Wadham College, Oxford, was first examined. It was erected in 1618. Mr. Batten explained the armorial bearings and the families which they represented.

MR. PARKER described the interior of the Church, and pointed out the openings in the transept pillars which, technically called squints, commanded the high altar and

enabled the congregation to see and hear with greater facility. It was an arrangement which might well be copied, but modern architects would not see the advisability of adopting any of the acts of our ancestors. The Church was built in the earlier part of the reign of Henry VII. Sir William Wadham built the transepts, the central tower, and the porch. The first part of the Church was much richer than the remainder. The north transept was very rich indeed. They had an example of the vestry behind the altar on each side of which was a door. There was a similar vestry at Magdalen College, Oxford. Stupid people call it the confessional. It was an arrangement that was found in many parts of England, and, like the squints, might be revived. The nave of the Church was rebuilt in 1825. A gentleman had told him that there were originally five arches and that they diminished the number of them to four in the most stupid manner. The high pews and gallery across the Church were equally objectionable. There might have been galleries originally. He knew many galleries which were placed on the side of the Church. It would be well to follow the example set by our ancestors—to have a country Church built as a country Church without galleries. A town Church might have galleries, but they should never extend right across the windows as they did in that Church. The interior was characteristic of the stupidity of the architecture of the great Georgian era.

MR. FREEMAN said that the Church was a very good example of a Somersetshire Church. It had retained its cruciform shape. It was indeed very similar to St. Cuthbert's at Wells, and St. John's at Glastonbury. The central tower at Iminster had been preserved, and with the exception of the nave the Church was in very good

preservation. It contained two varieties of the perpendicular style of architecture. The Chancel was unusually large. In a Church of that size they expected to find aisles or Chapels attached to it. The founders of the chantries had devoted their whole attention to the transepts and had thus produced a chancel of unusual size. The south transept was of the customary Somersetshire type of perpendicular tracery. There was a piece of fan tracery which was very similar to that found in the Church at Axbridge. The north transept was unusually large and of a peculiar style, as it did not follow the usual Somersetshire pattern. It was something similar to what was found in St. Mary's, at Oxford, and King's Chapel, and it must have been built in the reign of Henry VII. There were also one or two Churches in Northamptonshire of similar style. The north window was decorated. The roofs in all parts deviated from the usual pattern. They had been strangely patched and mangled, but there was little doubt that they were coved roofs. He quite concurred with what had fallen from Mr. Parker in reference to the nave. The vestry was situate in exactly the same spot as it was found in all the great Minsters. The greatest gratitude was due to the founders of Wadham College for two things—that they did not make their fellowship terminable, and that they forbade their warden to marry.

MR. NEVILLE GRENVILLE thought that the society should communicate with the warden of the College and inform him of the dilapidated state of their founder's tomb. The heads of the other Colleges had been liberal enough to keep the tombs of their founders in a good state of preservation, and he had no doubt the heads of Wadham College would do the same notwithstanding the injunctions their founder had imposed upon them.

The company then left the Church, and Mr. Freeman explained its external proportions. He thought that Mr. Parker had been a little too hard upon those who restored the Church in 1825. They succeeded in following the general outline of the Church, and that was more than he could say of a good many who repaired Churches at that time. He thought that Mr. Parker had taken a leaf out of his book. He seemed to be pugnacious, whereas he (Mr. Freeman) by some chance or other was peaceable. He thought that the tower was an imitation of the central tower of Wells Cathedral. It was much loftier in proportion than Wells, but in its details it coincided. The north transept was very rich in point of detail, but decidedly superior to the south in purity of style. The north transept windows contained corrupt tracery. There seemed to be some change in the design during the progress of the work. Mr. Freeman then minutely pointed out the details of the Church to substantiate this statement.

The Chantry House, and Grammar School.

MR. PARKER said that he was requested to say a few words as to the Chantry Houses. The one opposite the Church was re-built in Elizabeth's time, and was now converted into a School House. It followed the example of the small manor houses of the period. In the centre were the chambers (as they were called) of the two schoolmasters. The chantry priest's house was built in the 15th century—perhaps by one of the chantry priests of that magnificent chapel. They could see the outlines on the walls. As there were such a number of much finer houses of the period in the county, it was hardly worth while to lose time over it.

The company walked across the fields to the
Donyatt Quarries,
 which were explained by Mr. Moore, and then visited

Donyatt Church.

MR. FREEMAN, in explaining the principal features of the church, said that there was nothing particular to be seen outside the edifice except the tower, which derived a good deal of character from being of considerable height. The chancel walls had been cut through when the alterations were made, and the capitals were of peculiar design—a sort of cross between the Devonshire and Somersetshire patterns. The Church had gone through a good deal of patching, and the pillars did not agree. They had been put up in a very awkward way, and one was much higher than the others. He thought that some great change had taken place when the chancel arches were rebuilt. The windows of the aisle were of a purely local type. The windows at the east and west were of modern type, and therefore there was nothing more to say of them.

MR. PARKER said that it seemed that the Church was erected in the reign of Henry VII., and that alterations were made in it in the time of Henry VIII. There were chantry chapels at the east end of each aisle, which was peculiar to the Devonshire style. The oak carving of the benches had been well preserved, and prominent among it was the linen panel, which was peculiar to the reign of Henry VIII. Open seats were the best Church furniture in the world. There was nothing equal to them—they possessed richness without extravagance. It was a great pleasure to him to see a Church so well restored, and he was pleased to bear testimony to the general excellence of the work.

The Members then walked to

Donyatt Manor House,

and having first visited a building now used as a barn, which is in a very good state of preservation,

MR. PARKER said that it was a building of two stories in height, and portions of the fine old place still remained. It appeared to him to be one side of the quadrangle, and not a part of the regular establishment of the house, but chambers attached to the house. The date of it was 1345. The second Earl of Salisbury built the house without a license from the King, and he had to apologise and pay a certain amount to the crown. There was, therefore, no doubt as to the date. The windows looked real, and were, no doubt, fourteen-century work. Mr. Parker said that a pointed arch was only one sign of gothic architecture, and a great deal too much importance was given to that particular sign. One of the windows in the barn was of the decorated style.

MR. MUNCKTON explained that in the 18th year of the reign of Edward III. the manor of Donyatt belonged to William de Montacute. He had a capital seat and manor at Donyatt. In the 22nd year of Edward III. he caused the house to be forfeited. Having done so he was obliged to sue the King's pardon. He was created Earl of Salisbury on the 13th of March, 1337.

Through the courtesy of the occupier the Members went through the manor house, which contains a very fine old kitchen with magnificent windows.

MR. PARKER said that the house was built in the reign of Queen Elizabeth. It was a fine Elizabethan house of the period, not possessing any particular interest.

MR. MUNCKTON said that in 1552 Edward VI. gave the manor of Donyatt, in Somerset, to William Herbert, the first Earl of Pembroke. In 1625 the manor belonged to Sir Edward Coke, Lord Chief Justice of England, by whom several alterations were made in the premises.

The company then returned to Ilminster.

MR. W. A. SANFORD, gave a paper on the

Pleistocene Mammalia of Somerset,

referring more particularly to the fine collection of the remains of these animals, principally collected by Mr. Williams and Mr. Beard, and which were purchased by public subscription for the County Museum at Taunton. This paper will appear as the "Introduction to the Catalogue of the Pleistocene Mammalia in the Museum," which will be published from time to time in the proceedings of this Society.

MR. DICKINSON proposed a vote of thanks to Mr. Sanford for his address. He congratulated the Society upon possessing gentlemen—Mr. Dawkins and Mr. Sanford—who had devoted their time to the investigation of the animals to which the bones found in the Mendip Hills belonged. He wished to know how it was that the cave bones had remained in such an excellent state of preservation, whereas the bones at Nineveh were fast decaying. Mr. Dickinson referred to the labours of Mr. Beard, who had collected the bones from the Mendip Hills.

MR. BOYD DAWKINS wished to say a few words in reference to the climate of England at the time the animals referred to were in existence. Mr. Sanford thought that the mean temperature was the same as it was at the present time, from the fact that oak and other trees grew at that period. In controverting that opinion he would put into

the witness box the only witnesses he was able to bring before them. They had found the remains of the musk sheep near the river Avon, and associated with those of the reindeer. The musk sheep still existed in the Arctic regions of North America. There was a time when they were found in Northern Asia, but they had since disappeared. The reindeer ranged throughout the Northern part of Europe, Asia, and America, and its habit depended upon a climate of severity. From those circumstances he argued that the climate of England at that time was an Arctic one. He differed from Mr. Sanford in thinking that the hippopotamus formerly lived in the rivers of England through the whole year. He thought that England was then the same in climatal conditions as Siberia—intense heat for three months in the year and intense cold for the remaining nine months of the year. In the summer time the hippopotamus may have wandered to England, and that accounted for the bones found in this country. He believed that the bones found were preserved from decay under conditions of severe cold, just as the Norway salmon packed in ice and sent to London. He could not tell how it was that the bones found in the caves were more durable than those found in graveyards, but it was a curious fact that they were much harder and in a better state of preservation than modern bones. He felt a great interest in the time when man first appeared upon the earth. They could not guess the immense time that man had been living on the earth, or even the immense antiquity of the earth. He was first clothed in skin and used the rudest flint instruments for all his purposes. When those animals passed away that older form of man passed away along with them. Then they found a race of men living in the

South of France, of similar habits with the Esquimaux, and both people must have lived under similar climatal conditions. These men all used bone instruments. They mastered the use of the bow and were armed with poisonous arrows. They were certainly a superior race to the preceding one. After a great blank then man appeared in England, France, Germany, and other countries. He used rude flint and stone instruments. Then he passed away and another race of men came along who made use of polished weapons. In turn they also passed away and were supplanted by men who were acquainted with the use of bronze, and who used bronze for every purpose of life. Then the entry of the Gaul into England opened up another period known as the great iron period. They could simply treat that subject geologically. They knew not when one party succeeded another, nor did they know how many years elapsed between one period and the other.

MR. FREEMAN then read a very able paper upon the "Battle of Hastings."

Second Day: Excursion.

The arrangements for the Excursion, which gave universal satisfaction, were made by the Local Secretaries Rev. J. Gowing, and Mr. J. Baker. About mid-day by the kind courtesy of Mr. and Mrs. Evans, a very large party assembled at

Ford Abbey.

MR. CHARLES E. DAVIS who conducted the party explained its Architectural peculiarities, general arrangement, and gave a resumé of its history. He considered that

Ford Abbey was probably one of the earliest Cistercian foundations in England. It was first founded at Brightley, Oxfordshire, by Baldwin de Brion, Sheriff of Devon, in 1133, and, from various causes, was afterwards removed to its present site in 1141. The earliest remaining portion he considered must have been erected from thirty to forty years subsequent to this date. Sufficient however, of the original buildings remains following conformably with the usual Cistercian arrangement to enable a tolerably accurate plan to be made. Standing on the south side of the Abbey and facing the Perpendicular Cloister, with the door into the present Chapel immediately on the right, we may believe we are in the centre of the original cloister, which, in all probability was equilateral, the surviving Cloister in front being one of the sides. The Chapter House (the present Chapel) occupies the centre eastward, and faced the entrance to the Cloister and Monastery. The Church extended the whole length of the south side of the Cloister and Gate House giving the length of the nave, while the transept, north and south, were in continuation with the Chapter House, the Chancel still further east. No portion of the original Church remains. The building still existing on the east northward continues the plan, and is so far complete, as it gives a groined basement floor, in which were the workshops and store-houses of the Monks, with a very perfect dormitory above, now divided into several chambers. Approached by a central door from the north side of the Cloister were the refectory and kitchen, these still remain.

The Gate House on the west side has been removed as well as the Abbot's lodgings, which must have extended further north, to make way for a porch and entrance, with drawing room and staircase, erected by Inigo Jones in

his best style. Still further westward is a very fine pile of buildings, evidently erected by Abbot Chard, who surrendered the Monastery in 1539. It appeared to Mr. Davis to have been intended for new Abbot's lodgings the hall of which still remaining, measures fifty-five feet by twenty-eight, with a dais, solar, &c., at the western end. This building is most elaborate,—a tower on the exterior forms the entrance porch, with a beautiful oriel window above, of two storeys. The windows that light the hall are of very good character, and the whole is elaborately enriched with armorial bearings of the patrons and abbots of the Monastery.

At the invitation of Mr. and Mrs. Evans the company partook of the sumptuous provision hospitably laid out for them, which was suitably acknowledged by the President on behalf of the Society.

The Members then proceeded to

Leigh House,

the seat of Mrs. Henley. The mansion was kindly thrown open to the visitors, who afterwards assembled upon the lawn, where they were addressed by

MR. PARKER, who said that he asked them to assemble there, as it was the best point from which they could obtain a view of that very pretty and handsomely built Elizabethan House. It was called the Grange, and was said to be one of the Granges of the Abbey. It was now distinctly one of those nice gentlemen's houses which were built very frequently on the sites of the houses or granges when they were granted to wealthy families in the time of James I. It was a remarkably complete and good example of that style. Some few alterations were made in the time of Charles I. and Charles II. but the greater

portion of the original house remained, and it was a perfect example of the period. The two bay mediæval-looking windows, one above the other, did not denote that the house was erected earlier than in Elizabeth's time. It not unfrequently happened that such windows were inserted in Elizabethan houses, which showed that the mediæval arrangement continued during that Queen's reign. The house took from fifteen to seventeen years in building. They did things in those days steadily. They did not hurry them over as at present. He had no doubt that the date of the erection was from 1593 to 1610. There were, as usual, two court yards, one connected with the kitchen, and offices, following the mediæval arrangement. The whole of the centre of the house was occupied by the hall which divided it into two parts, according to the custom of the period, to keep the servants away from the other part of the house. He would now speak upon a matter to which he intended referring the previous evening. Some three or four years ago he was requested by the Members of that Society to publish his papers on Wells Cathedral, the Palace, Deanery, and other Ecclesiastical places. Generally, with archaeological works, the author had to bear the whole of the expense. The leading Members, however, came forward very handsomely and said that they would provide the woodcuts, if he (Mr. Parker) would publish the papers. He had thus made a little book which would only cost five shillings. Wells was the most remarkable city in England, and there was not such a series of Ecclesiastical buildings in the world. They had all the buildings appertaining to the Cathedral to make a Cathedral establishment complete. It was indeed the only Cathedral Church in England complete in all its parts. Besides the Church there were also the

Palace, the Deanery, the Archdeaconry, houses for the Canons, the Vicars Choral, the Choristers, the Master of the Fabric, the Precentor, the Organist, in fact, everything that was required. The infamous manner in which it was robbed in the time of Cromwell was the means of its being preserved. Poverty was the great preserver of ancient relics. He was acquainted with most of the antiquities of Europe, and there was no city which would equal Wells in the completeness of the series of Ecclesiastical buildings. He had a number of photographs of the principal objects which the Members of the Society might procure from the museum at Taunton if they wished for them, at the cost price.

The Members then proceeded to

Cudworth Church,

which MR. FREEMAN stated contained a most remarkable mixture of styles, and that proved to him that the Church had gone through all kinds of changes. The exact order and extent of those changes he could not make out. There was a Norman tower—a very rich design. There was the tympanum, with the small arch above. Then they had lancet windows, in several places mixed with early Decorated windows. The window on the east side of the south porch was a very curious one, and a little restoration would do good without doing any harm. That window was worth studying. One of the trefoils was characteristic of the fourteenth century. At Ditchat there was a similar example. The east window might be of any date—probably of the fourteenth century. On the south side there was one Perpendicular window—indeed they had all the different forms of windows. There was also a beautiful Norman font. Of the arches inside he

could not say much about. It was very bad and poor work, and might have been constructed in the fourteenth century. The piscina was good, and he had no doubt that the Church had a coved roof.

MR. PARKER said that he would endeavour to give some idea of the date. The Church appeared to have been commenced in the reign of Henry II., was carried on in the time of John, and then, after an interval, the Chapel was built in the reign of Edward I. The chancel window appeared to be of the time of Edward II., and the other windows were inserted at later periods. There was a Norman tower and font. There was formerly a door in the porch on the north side, but that had been blocked up.

The interior was then examined, and Mr. Parker said that anything more absurd than the partition in the south aisle he could not conceive. If they wanted to put up a partition why could they not have fixed it at the pillar, and not immediately in the middle of the arch? It seemed as if the Churchwardens endeavoured to make the thing look as ugly as possible. The cradle roof was of very early date—probably the time of Edward III. Professor Willis had found one in Gloucestershire which was constructed at the beginning of the fourteenth century. There was something similar at Windsor. He (Mr. Parker) was of opinion that the date of the roof was 1353-4. Antiquarians had a habit of dating the Perpendicular style not sufficiently early. It was true that the style prevailed principally in the fifteenth century, but he had found examples of that style which could not be dated after the middle of the fourteenth century. There were numerous specimens in the reign of Edward III. The Norman font was remarkably good. It was decorated

with the star ornament, which was not very common in this country. It was therefore of considerable interest, and was erected in the reign of Henry II. There was a western doorway which he did not think was an original arrangement, but introduced afterwards.

Having again taken their seats in the carriages the company visited

Dowlish Wake Church,

where there is a monument erected to the memory of the lamented Captain Speke. It is a sarcophagus of serpentine marble, and upon the top is an inlaid brass cross. Around it, also inlaid in brass, is the following:—
 “Sacred to the memory of John Hanning Speke, second son of William and Georgina Speke, who died September 15, 1864, aged 37 years.” Above is a circular arch, upon which are carved the emblems of the Nile—an alligator and hippopotamus. Above is the bust of the deceased, encircled by a lotus wreath. In the recesses are military badges, and a quadrant encircled by a belt upon which “A Nilo Præclarus” is engraved. A two-light memorial window has also been erected in the north chapel by J. Lee Lee, Esq., of Dillington.

With regard to the interior of the Church, MR. PARKER said that these appeared to be a fifteenth century tower built inside the walls of a thirteenth century Church, similar to the Friary Churches in Ireland. It was, however, quite uncommon in England. The walls appeared to be much older than the tower, and the only explanation he could give was that a more modern tower had been built into an earlier Church. The Church had been recently restored, by no means badly. It was, indeed, made into a handsome modern Church, but possessed no

great interest to the archæologist. The aisle appeared to have been added in the reign of Henry V.

Having repaired to the outside, MR. FREEMAN said that he asked Mr. Parker to take his place inside the Church because that gentleman had a very ingenious theory about the tower. He (Mr. Freeman) was not prepared to say either yes or no at the moment, and, therefore, he thought that Mr. Parker should explain it himself. The tower was almost as strange outside as inside and he could not conceive how it got there. At Butleigh there was one of a similar class. They did not worship *all* old churches, for there were good and bad architects as there are now. They had now certainly fallen in with the work of one of the bad architects. Putting aside the mere dignity of outline nothing could be possibly worse than the tower. It was not quite clear whether the architect intended making it less square than it was. The west walls were carried out as buttresses. On the west side was a little window as poor as anything could be. The embattlements were poor, and to relieve the summit of the tower were two gurgoyles placed on the south side. The other windows in the Church were new or copied from the old ones.

The company then visited

Wake Hill House,

where W. Speke, Esq., of Jordans, entertained them. The greatest hospitality was shown by the Rev. H. Speke, in the absence of his father.

The company having assembled upon the lawn, the President thanked Mr. and Mrs. Speke for their hearty reception, and great hospitality. He proposed their health with cheers.

The REV. H. SPEKE said that on behalf of his father and mother he returned them his sincere thanks. His father was anxious to have entertained them at Jordans, but as the Society could not go there until the following morning Wake Hill House had been substituted as the place of entertainment. He thanked them for the honour conferred upon his father and mother by their attendance that day.

Kingstone Church

concluded the excursion of the second day.

MR. FREEMAN said there was a great deal more to see outside than inside. First of all he wanted to say something as to his observations upon Dowlish Wake Church. What he said from the point where he was stationed was substantially correct, but on the north side the belfry turret relieved the tower from the absurd appearance to which he alluded on the south side. Kingstone Church he remembered to have seen some thirteen or fourteen years ago. It pretty well escaped all those faults which the other Church, built on the same plan, had fallen into. He quite forgot when at Dowlish Wake that there was a Church similar to it so near at hand from which he could draw an illustration. Here they had a simple example of the plan of the Church spoken of. It had a tower between the nave and chancel, and nothing else—no aisles or anything of the kind. The tower was much more finished and of much better design in the upper storey, and the window was far superior to the window at Dowlish Wake. The gargoyles were placed in a better position and were of much better design. The pinnacles were broken off. The nave was formerly higher than at present. They could see that by the tower. The walls of the chancel were new. The foundation dated in the fourteenth century.

MR. PARKER would only supplement what Mr. Freeman had stated. Since he spoke of Dowlish Wake Church the discussion had been criticised. He had been informed that a member of the Speke family rebuilt the Church in the time of James I., 1621 or 1625. He had, therefore, little doubt that the tower was also built at the same time. It was a bad and clumsy imitation of the tower of Kingstone Church. The Gothic of the reign of James I. was comparatively good. The Somersetshire builders went to Wadham College and built a Perpendicular chancel very different from the rest of the College. There were other instances in that neighbourhood which showed that in the time of James I. there was a sort of revival of Gothic architecture.

The REV. W. A. JONES, as Secretary, said that he wished to express on the part of the Society, their obligations to the Local Committee, and to the Rev. J. G. Gowing and Mr. Baker as the Local Secretaries. When they went into any new district much of the success of the Meeting depended upon the services rendered by the Local Committee and Local Secretaries. He expressed the feelings of all the Members of the Society when he said that they were deeply indebted to them for the assistance rendered.

The REV. J. G. GOWRING, in acknowledging the compliment, said that he felt great pleasure in doing what he had done for the Society. As a stranger in the county he thought that it was his duty to promote in every possible way the interests of the town in which he had been called to reside. If he had been successful in promoting the object of the Society the gratification of having done so was sufficient recompense for the trouble he had taken.

MR. BAKER also returned thanks, and expressed the pleasure it gave him to be of any assistance to the Society.

MR. FREEMAN proposed a vote of thanks to Mr. Stayner who had so kindly thrown open his house when some of the Members of the Society were compelled to leave the hotel. The Society would have very pleasing reminiscences of the hospitality of the inhabitants of Ilminster, who had received them with open arms.

MR. STAYNER having briefly replied, the visitors returned—some to Wake Hill House, and others to their respective homes.

Third Day: Excursion.

About 100 ladies and gentlemen started from Ilminster about ten o'clock, and at once proceeded to

Jordans,

the residence of W. Speke, Esq., to inspect the African and Indian curiosities collected by the late Capt. Speke.

MR. BOYD DAWKINS, and MR. SANFORD explained the various objects of interest. On the right hand side of the hall was a huge skull, which must have belonged to an elephant of colossal dimensions. There were a great number of holes in the forehead, some of which were undoubtedly bullet holes. The others Mr. Dawkins said were the result of abscesses. This animal had killed several human beings and was the terror of the country which it inhabited. A prize was offered to the man who succeeded in shooting it, and several attempts were made by the native Indians to destroy it, but without effect. Captain Speke, however, succeeded in killing the monster with a

conical bullet which passed through the skull into the brain. On the opposite side of the hall was the skull of a hippopotamus, which Mr. Dawkins said was about four years of age. At the extreme end of the hall was a crocodile—measuring about eight or nine feet. In a case near it was a magnificent head of a tiger leaning upon its fore paws. This must have been an immense animal, as the paws were fully six inches in width. In the same case were heads of the sheep of the Caucasus, the buffalo, the antelope of the Pyrenees, South African ox, wolf, and bear. A number of horns belonging to various species of deer, and the horns of sheep from the Himalaya mountains, were explained by Mr. Dawkins.

MR. W. AYSHFORD SANFORD said that the Society was very much indebted to the late Captain Speke for the admirable collection of skeletons which he had presented to the Taunton Museum. If sportsmen only knew of what importance those skeletons were to science he was sure that they would bring home a greater number. It was remarkable, considering the number of our colonial possessions, that we possessed such few collections of the bones of wild animals. The collection in the hall was a most valuable one, and of great interest to the osteologist.

With his accustomed liberality, MR. SPEKE entertained the visitors with wine, and cake, &c., after which they resumed the excursion.

The Members having taken their seats, the carriages proceeded to

The Parish Church of Combe St. Nicholas.

MR. FREEMAN said that the tower, with the turret attached to the rood loft, made up a very nice group. There was nothing remarkable in the exterior, with that

exception. Of the interior, Mr. Freeman said that there appeared to be the remains of a Norman pier in the north aisle, which he could not understand. He was informed that the north aisle had been lengthened from the spot where the pier now stood. He did not know when those strange changes were made. The pier appeared to be the remains of a twelfth century church, and a part of an unusually lofty doorway. It appears to have been fixed in that position to have the image of the patron saint put upon it. That pier was the most remarkable object in the Church, which, he acknowledged, he could not understand. Of the rest there was not much to point out. It was an ordinary Perpendicular Church of the district. The rood loft had been cut up in the most barbarous fashion, and stuck about all over the Church. Mr. Freeman then referred to the screen that divided the north and south chapels from the chancel, and which are painted. They had gone out of their way in ornamenting the Church. Instead of carving and gilding, the "restorers" had painted the screens with the colours of the rainbow, surmounted by an imitation of a parapet! The roofs were also extraordinary. He hoped that some of the ratepayers of the parish were present, as he was informed just now that the parishioners insisted upon the restoration of the Church in the manner in which it had been carried out. If that were correct they manifested a strange perverseness—unlike anything in this part of the world. Why they could not produce a good coved roof as formerly, was inexplicable to him. The squints were reversed and commanded the chapel instead of the high altar.

Roman Remains at Wadford.

On arriving at Wadford the Members of the Society found that extensive excavations had been made under

the able direction of J. Brown, Esq., who occupies the land. Very complete and accurate ground plans with full drawings of the tessellated pavements have since been forwarded to the Museum by Mr. Brown, which the Society cannot but regard as a most valuable contribution.

When the Company was assembled the Secretary the REV. W. A. JONES, delivered an address on

Roman Villas in Great Britain

and on some of the details of that on the site of which they were assembled.

He observed in the first place how that the situation of very many of these large residences—far removed from the Military Stations, and the costly and elaborate ornamentations, abundant evidences of which were now before them—afforded clear evidence that the Romans held a quiet and peaceful possession of these districts, and had no fear of being disturbed. The Roman villas already explored by the Society at Pitney, at High Ham, at Coker, and in the neighbourhood of Bath, confirmed this view of the social and political condition of the country during the Roman occupation.

A rapid glance on the details of the ground plan of the building as revealed by the excavations left no doubt that here as elsewhere, ample provision had been made for all the luxurious indulgences which characterized the Romans in the palmy days of the empire. He would not pretend to assign this villa to any definite period during the Roman occupation. There were no inscriptions or dates to guide them, and he was not aware that as yet Archæologists had been able to apply to Roman remains the same sure tests of their respective dates, which their friends Mr. Parker, and Mr. Freeman so successfully applied to more modern

structures. It is possible—and he thought not improbable—that this and other villas might have been occupied by the natives of the district after the departure of the Romans. The crocks of silver coins and other treasures left by them on their departure, would seem to show that the Romans expected to return. But there was no documentary evidence, and the events related to a period of our national history which he feared would always remain a region of doubt and speculation. Most of the remains of these Roman or possibly Romano-British villas, however, supplied the clearest evidence of their having been destroyed by fire, and there is every reason to suppose that this may have been done for the most part by the early ravages of the hordes of Saxon Invaders. While no doubt large portions of the villas were but slightly built, and the walls were for the most part composed of wood-work, which would readily take fire, yet he thought no one could look upon the solid stone foundation walls before them, without coming to the conclusion that they were intended to bear a super-structure of considerable solidity. Mr. Brown says that hundreds of cart-loads of stone have been taken away from the field in his time. And as to the objection made to this theory on the ground of the absence of building materials on the the site of Roman villas, it was quite sufficient to refer to the present state of old Sarum and the extensive stone-buildings which it is well known had existed on that site.

MR. JONES regretted the absence from the meeting of Mr. Walter, of Stoke, whose knowledge and experience in this subject would have been of great service, and he also read extracts from a notice of Wadford, by Mr. Walter, from the first Volume of the Proceedings of this Society, and a letter on the subject lately received ex-

pressing a hope that the enfranchisement of the tenement where the remains are found might be effected.

On the motion of Mr. DICKINSON, the best thanks of the Society were presented to Mr. Brown for the care he had taken of the relics and for the great pains and trouble he had taken in conducting the excavations.

MR. BOYD DAWKINS addressed the meeting on the

Animal Remains found in the Debris.

One of the bones was that of a short horn ox, another was that of a horse, and from finding these bones in almost every site of Roman remains he had come to the conclusion that the Romans were in the habit of eating horses. There were also bones of the red-deer, which ran wild in this country, and of a lamb, and a bone which showed that the inhabitants did not despise pork.

The Members then proceeded to

Chard.

The President and Members of the Society were received most courteously by the Mayor, T. Spicer, Esq.

A large and most valuable collection of objects of Antiquarian interest had been arranged chiefly by Mr. Arthur Hall, for the inspection of the Members.

MR. SPICER read a long and interesting paper, "On the Antiquities of Chard." At the close of this paper

MR. DICKINSON observed that as they were then all assembled together, this would be the most convenient time formally to acknowledge the services of those gentlemen to whom they were so much indebted for the success of the Meeting. Votes of thanks were accordingly passed to the Rev. Wm. Arthur Jones, General Secretary; the Rev. Mr. Gowring, and J. Baker Esq., Local Secretaries; and to Mr. Arthur Hall for arranging the Local Museum.

On the motion of COL. PINNEY the best thanks of the Meeting were presented to R. T. Combe, Esq., for the admirable manner in which he had discharged the duties of President.

The PRESIDENT having acknowledged the vote of thanks, the Members visited

Waterloo House,

in order to inspect an elaborate plastered ceiling. They then entered a store-room occupied by Mr. Coles, iron-monger, which the Rev. Mr. Thompson, of Chard, said was originally the hall of justice. At the end of the room were "The Judgment of Solomon," "Daniel in the Lion's Den," and "The three Men in the Fiery Furnace."

Chard Church

was next visited. MR. FREEMAN said that the first thing that struck him when he saw Chard Parish Church was its great similarity to the Cathedral at Bangor. That was not a very great compliment, as Bangor Cathedral was the poorest in the island. It was a cruciform Church in a certain sense, as there were projections which might by courtesy be called transepts. They were large porches, but they had been most ingeniously blocked up. Although that was in itself a bad alteration, yet the work had been done exceedingly well. The moulding was well copied, and the work so well done that it was rather puzzling at first to decide whether they were porches or transepts. The roof of the Church was somewhat higher than at present. Where they had a high roof they always found a clerestory, but no clerestory if a low roof. There was not a clerestory in that Church. When the galleries were

constructed light was wanted, and they supplied the want of a clerestory, to a certain extent, by putting in those dormer windows. If those windows were in a house they would be greatly admired. Those who had such windows in their houses were very lucky, but those who had them in their churches considered themselves very unlucky. He did not think that there was anything upon which to comment. The whole of the windows, with the exception of those in the transepts, were in the ordinary type of the county. The east window was a very good specimen of the architecture of the period. It would be a good Church if the tower were a little higher.

The REV. MR. THOMPSON asked if Mr. Freeman thought the tower was built contemporaneously with the Church.

MR. FREEMAN replied that he could not see any reason why it should not.

The company then entered the Church, and Mr. Freeman said that the pulpit was in a very awkward place. There was not much to say of the interior. Perhaps in its general effect it was more suggestive of Yeovil Church than any other in the neighbourhood. It resembled Yeovil Church in being of considerable size and in having piers and arches without a clerestory. The tower was by no means so lofty as that at Yeovil. The Church had coved roofs in the nave and chancel, although they had been to a considerable extent mutilated. He stated outside that the roofs were formerly considerably higher than at present. The people who lowered those roofs had some idea of what a roof ought to be—not like their neighbours at Combe St. Nicholas. What they did was to cut off the end of the beams and so preserve the general effect of

the ancient roof. It looked very much as if some weighty body had sat upon the ancient roof and crushed it down. The whole Church was very much of a piece. The arches entering into the chancel from the side transepts were probably not done exactly at the same time. The roof opened from a very fine stone cornice similar to the old one.

The Annual Meeting was then declared closed, and the company dispersed.

Conversazione Meetings.

1865-6.

1865. *November 9th.*

On the Ancient Sea Beaches and Sandbanks in the Lowlands, between Bridgwater and Langport, and the Submerged Forest on the north coast of Somerset, by the Rev. W. A. JONES.

On the Arts of Spinning and Cloth Making, as carried on by the ancients, and as illustrated by the less civilised nations of the present day, by E. B. TYLOR, Esq.

„ *December 14th.*

On the Animals belonging to the same period with those, whose remains are in the Museum, from the Mendip Caves, by W. A. SANFORD, Esq.

On the Gorilla, by H. J. ALFORD, Esq.

On the Tower of St. James's, Taunton, by the Rev. T. HUGO.

1866. *February 8th.*

On Ancient Roman Sepulchral Inscriptions, by the Rev. W. A. JONES.

On a Mediæval Jest Book, by E. B. TYLOR, Esq.

On Rome as it is, by C. N. WELMAN, Esq.

The Museum.

The following additions have been made to the Museum and Library since the publication of the last Volume :—

Four large teeth of Indian elephant, by Mr. M. JACOBS.

A token found in the garden of Rizdon House, Taunton, by Mr. H. TURLE, jun.

Roman and other coins, by Mr. F. WHITE.

Kaffir and Hottentot weapons and ornaments, by the Rev. R. ADDISON.

Pottery, &c., from the Roman kiln, Shepton Mallet, by Mr. CLARKE.

Barnacles from the coast of Africa, by W. METFORD, Esq., M.D.

Rubbing of brass from Shepton Mallet Church, by Mr. FARBROTHER.

A young gorilla from Africa, by Mr. WOOKEY.

Vampire bat, by Lady CHAPMAN.

Large hornet's nest, by Rev. T. B. BARTLETT.

Portion of the original screen of St. James's Church, Taunton ; pipe and coins found in St. James's Street, Taunton, by Mr. E. JEBOULT.

Buffalo head and horns ; wild boar's head ; two wildebeest (gnu) heads and horns ; fossil shell from Algoa Bay ; skull of Kaffir, from South Africa, by Mr. A. G. WARREN.

Head of a toucan ; two heads of small deer, from India, by Mr. P. TAYLOR.

Milking-stool, dug from an old filled up water course under old houses in St. James's Street, Taunton, by the Rev. W. A. JONES.

A specimen of the little bittern, *Ardea minuta*, killed at Langport, Oct., 1864, by E. W. BAGEHOT, Esq.

Portions of tessellated pavement, wall plaster, pottery, &c., from the Roman Villa, Wadeford, Combe St. Nicholas; also plan and drawings of the remains, by W. BROWN, Esq.

A series of minerals from the Brendon Hill Mines, by Mr. M. MORGAN.

Teeth of hyæna, &c., from Wookey, by Mr. PHILLIS.

Bronze celt found in Rodney Stoke Wood, by W. B. NAISH, Esq.

Fragments of "Hearne's Oak," by Mr. PERRY.

Architectural History of Glastonbury Abbey, by the Rev. Professor WILLIS.

Lyson's Magna Britannia, 8 vols.; *Fabyan's Chronicle*, *Hall's Chronicle*; *Grafton's Chronicle*, 2 vols.; *Hardyng's Chronicle*; *Chronicles of the Kings of England*; *History of the Stuarts*; *Grosse's Antiquities*, 8 vols.; *Grosse's Military Antiquities*, 2 vols.; *Crania Britannica*, 2 vols, by the Rev. F. WARRE.

Ilchester Alms House Deeds, by Rev. W. BUCKLER.

Concise Glossary of Architecture; *Architecture of the City of Wells*; *Photographic Illustrations of the Architectural Antiquities of the City of Wells, of Glastonbury, and of Dorsetshire*, by J. H. PARKER, Esq.

Journal and Correspondence of Dr. Whalley, by the Rev. H. D. WICKHAM.

Publications of the Ray Society, from 1844 to 1854, 26 vols., by H. ALFORD, Esq.

Proceedings of the Bath Natural History and Antiquarian Field Club, No. 1, by the Rev. H. H. WINWOOD.

A series of valuable works on Natural History subjects, by Dr. SARS, and others, from the Royal University of Christiana.

Proceedings of the Geologist Association.

Meteorological Observations; United States Sanitary Commission Bulletin, 3 vols.; *Circular No. 6, Surgeon General's Office, War Department; Land and Fresh Water Shells of North America*, parts 2 & 3; *Monograph of American Corbiculadæ*, from the Smithsonian Institution, Washington, U.S.

Publications Received.

Proceedings of the Natural History Society of Dublin.

Journal of the British Archæological Association.

Bulletin de la Société Vaudoise des Sciences Naturelles, Lausanne.

Reports and Papers of the Associated Architectural Societies of York, Northampton, &c.

Transactions of the London and Middlesex Archæological Society.

Sussex Archæological Collections.

Transactions of the Historic Society of Lancashire and Cheshire.

Journal of the Kilkenny and South East of Ireland Archæological Society.

Journal of the Royal Dublin Society.

Wiltshire Archæological and Natural History Magazine.

Memoirs of the Literary and Philosophical Society of Manchester.

Collections of the Surrey Archæological Society.

The Archæological Journal.

Report of the Smithsonian Institution, Washington, U.S., 1863, 1864, 1865.

Palæontographical Society's Journal, (purchased).

REFERENCES TO THE PLAN, &C., OF THE ROMAN
REMAINS AT WADEFORD, COMBE ST. NICHOLAS.

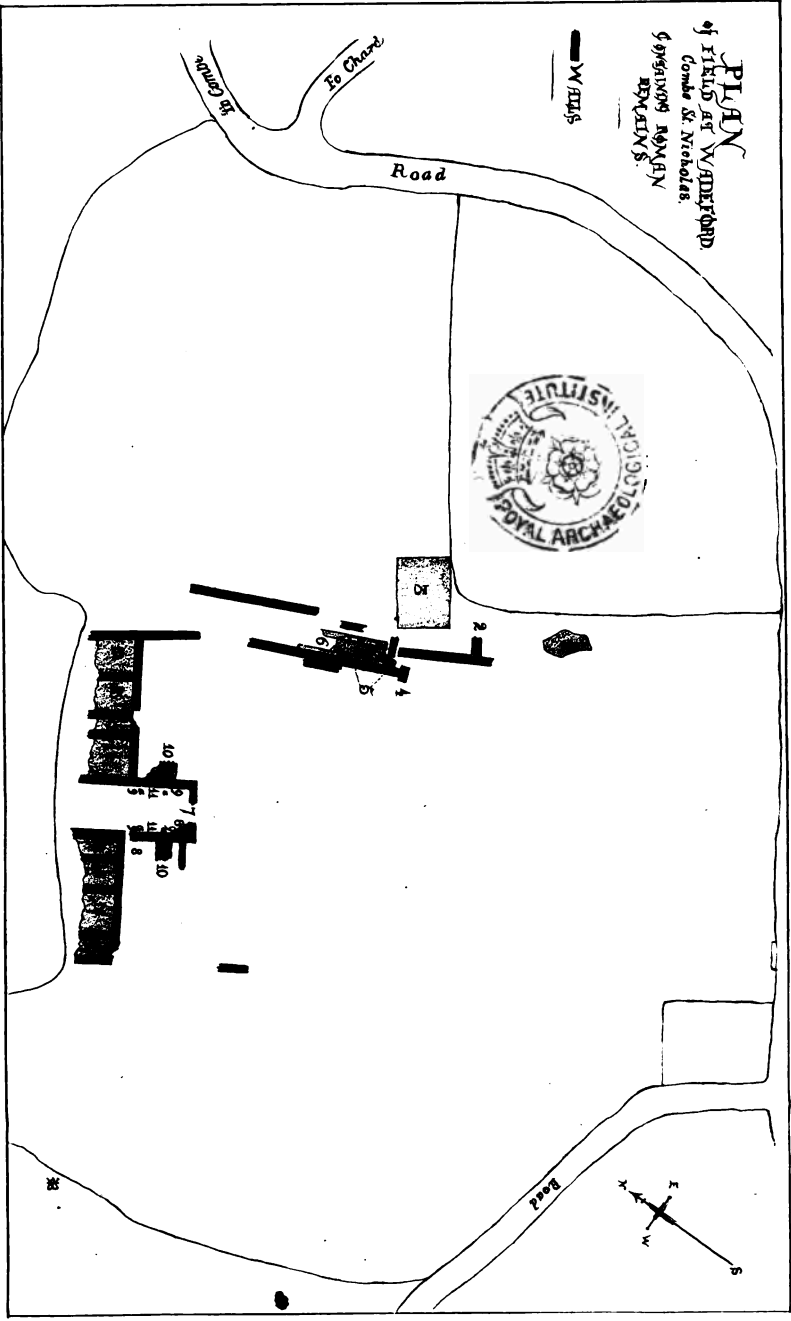
The remains are covered with soil to a depth of from one to three-and-a-half feet.

The walls vary from one to two feet high.

No. 3 is two-and-a-half feet above the level of No. 6.

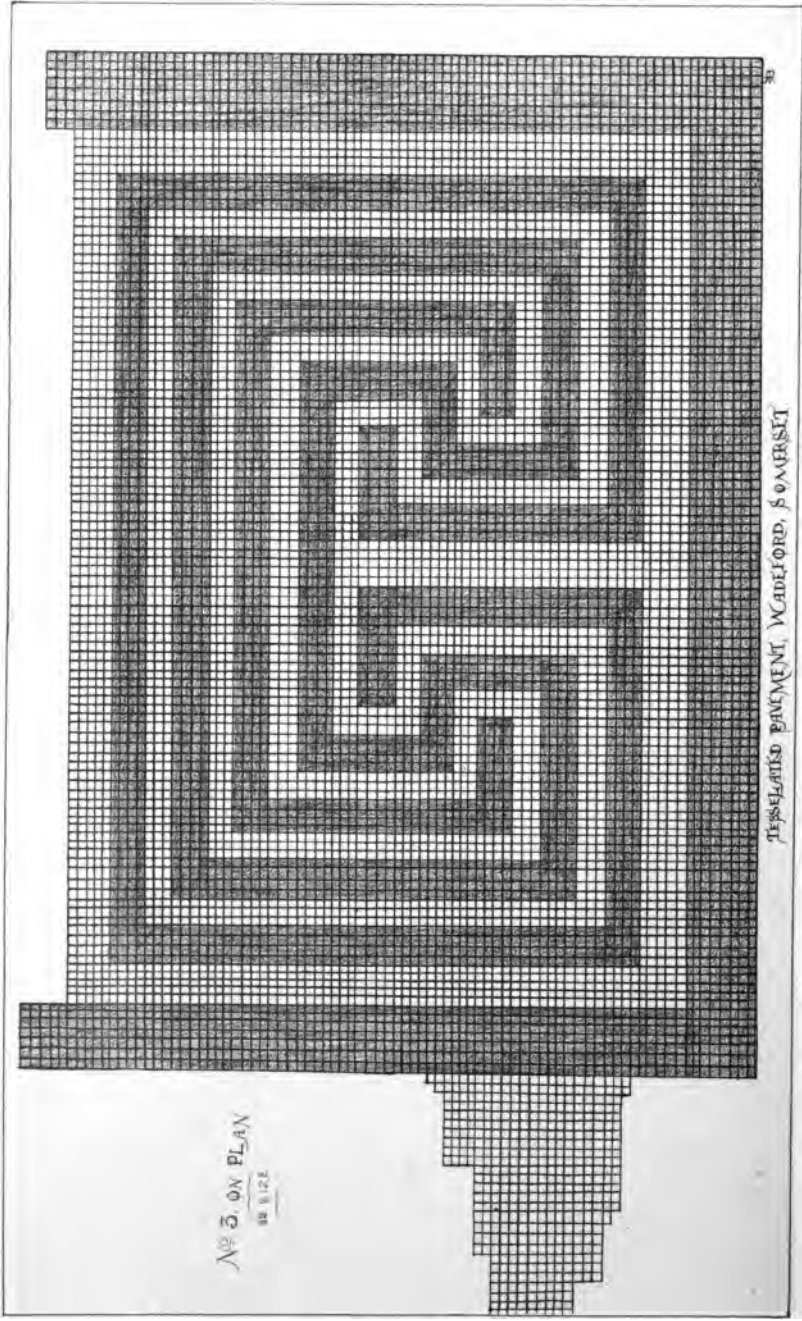
No.

1. Remains of the Hypocaust, discovered in 1861.
2. Portion of very fine tessellated pavement resting on wall.
3. Pavement 24 feet square, formed of red and white coarse tesserae, (imperfect).
4. Block of freestone, with mortice, (removed), placed on wall in line with
5. Flat freestones on wall, (removed).
6. Passage formed of coarse tesserae, in diagonal squares, blue and red, with white border.
7. Entrance with base of column.
- 8, 8. White tesserae.
- 9, 9, 9, 9. Walls of cut freestone, faced at *a, a, a, a*.
- 10, 10. Rough walls subsequently built on tessellated pavement.
- 11, 11. Rough walls between *a, a*, probably built at a later period.
- 12, 13, 14, 15, 16. Rooms with fragments of fine patterns, formed of half inch tesserae, and surrounded by borders of inch tesserae. Drawings of portions of the borders of 12 and 13 are here given. A drawing of No. 14 was published in the first volume of Proceedings, this with all the other portions of fine tesserae, are entirely destroyed.
- 17, 17. White tesserae, probably passages.
18. Coarse tesserae, white, red, and blue, irregular pattern, (perfect).



Wm. Bridgood. 1874.

W. West. 1874.



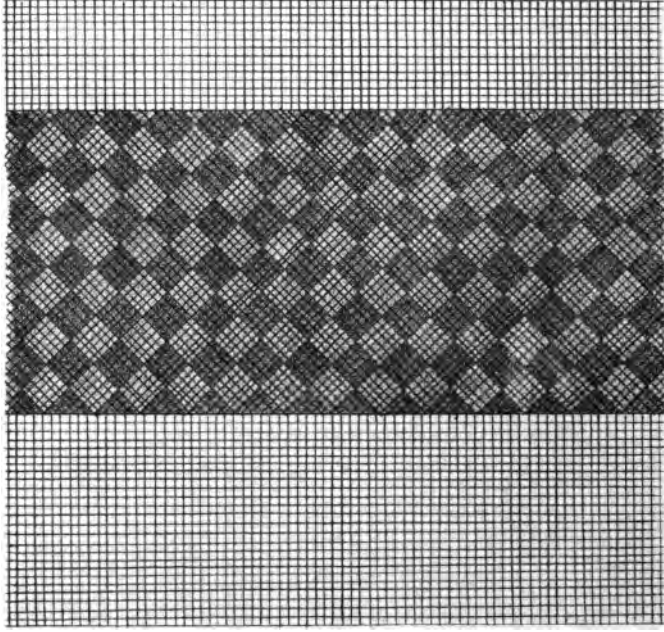
No. 3. ON PLAN
188 1122

Tessellated Pavement, Wadeford, Somerset

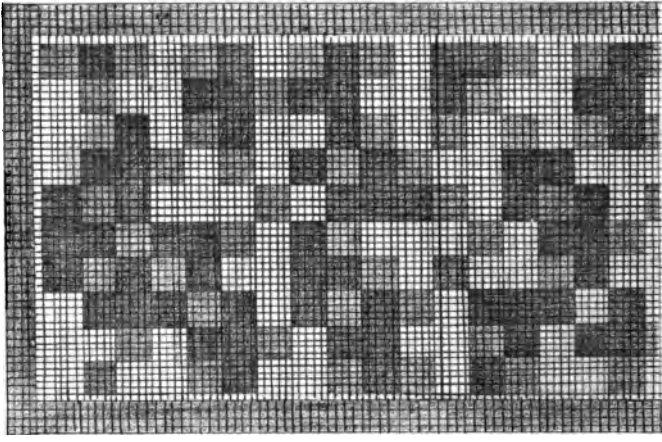
Wm. D. Agood. i. 27

1122

N^o 6 ON PLY



N^o 18 ON PLY



■ WHITE
 ■ RED
 ■ BLUE

1/2 INCH

DISSEMINATED PATTERNS, WADEFORD, SOMERSET.

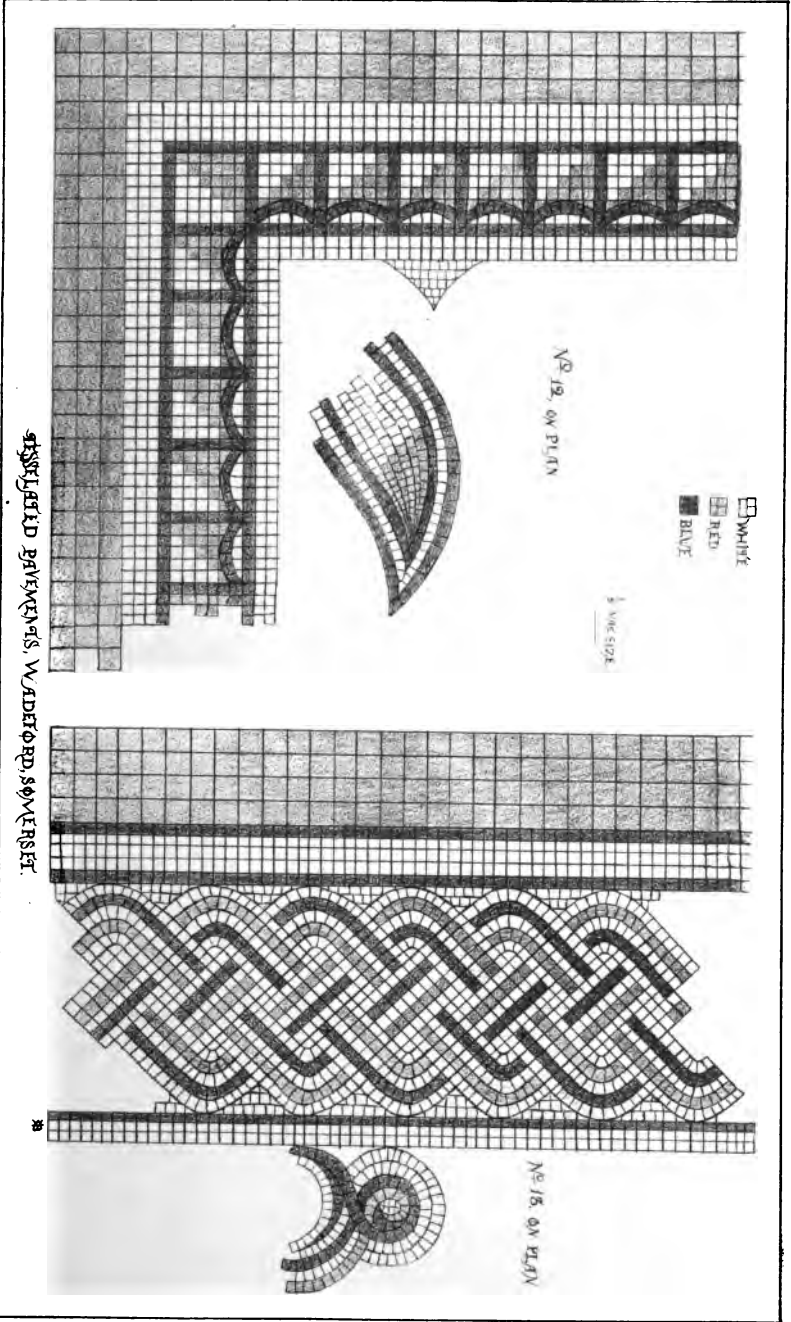
Rev. Bridgwood 1881.

West 1777

Mr. Ridgwood 12th

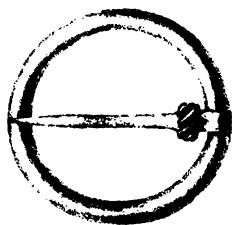
DESIGNED PAVEMENTS, WATERFORD, IRELAND.

W. Mac Gregor





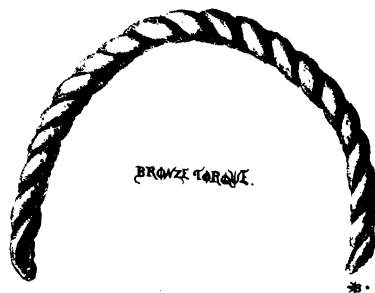
BRONZE ARROW-HEAD.
1/4 SIZE.



BRONZE FIBULA.



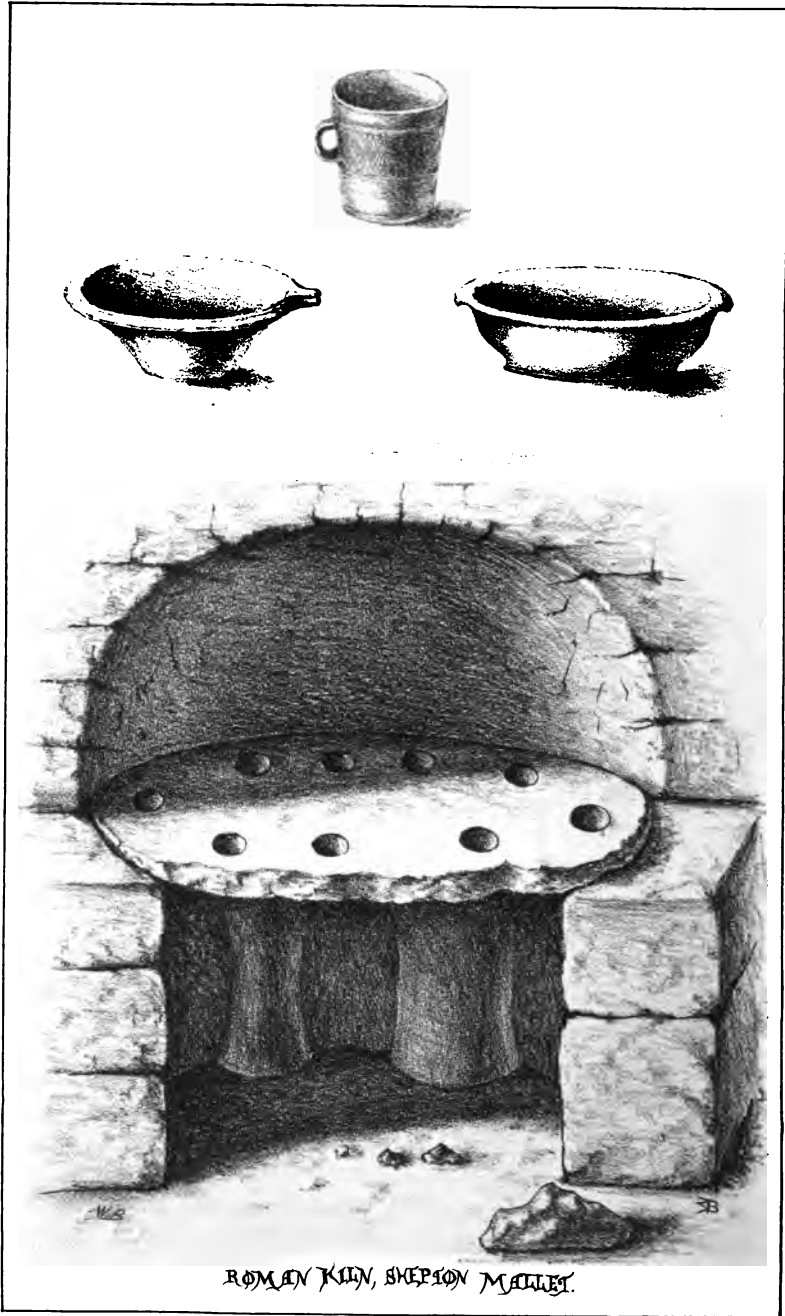
IRON ARROW-HEAD.



BRONZE TORC.

ANTIQUITIES FOUND AT WIDEFORD.

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ROMAN KILN, SHEPION MALL.

Wm. Bidgood lith.

W. West engr

PROCEEDINGS
OF THE
SOMERSETSHIRE ARCHÆOLOGICAL AND
NATURAL HISTORY SOCIETY.

1865-6, PART II.

PAPERS, ETC.

Roman Potters' Kiln,

DISCOVERED AT SHEPTON MALLET, NOVEMBER, 1864,
ON THE SITE OF A LARGE BREWERY, BELONGING TO
MESSRS. MORRIS, COX AND CLARKE.

BY THE REV. H. M. SCARTH, M.A.,
PREBENDARY OF WELLS, &C.

ON the line of the Foss road between Bath (Aquæ Solis) and Ilchester (Ischalis), and about two miles south of the point called Beacon Hill on the ordnance map, where the Foss road is crossed by the line of Roman road leading from Old Sarum to the port on the Severn, (ad Axium), and about a mile to the west of the Foss road lies the town of Shepton Mallet. Here a large brewery, in the occupation of Messrs. Morris, Cox, and Clarke, has recently been built. It is situated on the south side of the road leading to Croscombe and Wells, a little way out

of the town of Shepton Mallet, and in the process of excavating a spot for the large boiler of the brewery, the workmen came upon an ancient Roman Potters' Kiln in good preservation. The kiln is excavated in the hill side, with an approach to it and a space in front, protected by a slight wall which is still to be traced. On descending to the level of the floor of the kiln it is found to be about six feet below the surface. The sides of the kiln are protected by stone jambs. The form is circular, the shelf for the pottery remaining perfect, except a portion of the front which has been broken away, and the dome above the shelf remaining entire to the height of about two feet at the back of the kiln. The shelf is supported at the back by five pillars of clay, about eighteen inches high, and is seven inches thick ; the width of the shelf is forty-nine inches, and depth from front to back forty-five inches. It is pierced with nine holes, varying in diameter from nine to three inches, not quite circular in form. There are traces of two more perforations in the part broken away. The back and sides of the kiln are coated with clay. When first discovered several cups were found placed in the holes or on the shelf, as they had been left by the hand of the Roman potter.

The pottery found in and around the kiln is of a coarse red kind, in texture very similar to our modern flower pots. Some fragments of black ware have also been found, and a very perfect mortarium or vessel for triturating, made of white clay. These are now in the possession of Mr. William Clarke, through whose courtesy I have been enabled to make the sketch from which the accompanying drawing is taken. Fragments of charcoal and burnt wood are said to have been found under the kiln when it was first opened.

This kiln, although it appears to have been used only for the manufacture of a very coarse kind of ware, is interesting as the first Roman pottery kiln recorded to have been found in the west of England. Its discovery, however, has been succeeded by the finding of four more of similar construction in the same locality, though not in as good preservation. These have all been found on the brewery premises and within the space of a quarter of an acre, but their decayed condition, owing to the damp to which they had been subjected, caused them to fall to pieces when first uncovered. A bed of clay has been found close at hand.

Much pottery was discovered in and around the first kiln that was opened. Most of it broken, but some perfect, and other specimens nearly so. Two of these cups are in the possession of Mr. William Clarke, and many mutilated vessels which sufficiently show the nature of the ware manufactured. The larger of the two cups is five inches high, three and an half wide at the base, and five at the top, and has two circular bands, one above and the other below the handle, and is scored on the sides. The handle is two inches wide, and fixed to the side of the cup.

The second cup is similar in shape, and is four inches high, and four and five-eighths wide at the top, narrowing to the base. The bottoms of these cups are torn away, as if the clay when moist had adhered to the shelf of the oven in the baking.

A shallow bowl of red ware of finer quality was also found, and a mortarium of white clay, and of the usual form, the bottom being covered with small particles of flint for tritulating or pulverizing.

No fragments of Samian or Durobrivian ware have been found around the kilns, but two portions of a quern or

Roman handmill, fitting one into the other, and composed of a coarse conglomerate. The diameter of the quern is fifteen inches, and the thickness from two and an half to three inches.

In the adjoining field the workmen in quarrying stone last summer cut through a pit containing animal bones and other refuse, among which Roman coins were found of the Constantine family. Human skeletons have also been found in the vicinity of these kilns.

In the *Gentleman's Magazine* for December, 1864, will be found a detailed account of the first discovery, but the particulars here given are from personal inspection. I am, however, indebted to Mr. Serel of Wells, and to Mr. Freeman of Somerleaze House, for first calling my attention to these interesting remains. It ought to be recorded that the owners of the brewery, in consequence of the interest taken in the kiln, have taken measures to preserve it from destruction, by causing an arch to be thrown over the spot where it stands; it can therefore be seen by any one interested in Roman remains. Such care is most commendable, and manifests the greater value now set upon these records of the condition of our island under the Roman dominion.

The Roman potteries which have as yet been discovered in Britain are situated on the banks of the river Nene, and on the Medway. Kilns have also been discovered in the New Forest and in London.

The beautiful work of Mr. Artis* contains a full account of those found at Durobrivæ, now Castor, in Northamptonshire, and extending about twenty miles on the banks of the Nene. Mr. Wright in his *Celt, Roman, and Saxon*

* Durobrivæ of Antoninus, by Artis.

chapter vii., has also described these and other indications of Roman fictile manufacture.

In the *Collectanea* of Mr. Roach Smith will be found very interesting details of the potteries on the Medway, and of the kiln found in London. Volume VI. contains drawings and descriptions of different kinds of Roman kilns, one of which, viz., that found in London (see plate xxxvii., no. 4) very much resembles the kiln described in this paper.

The British Museum possesses a large assortment of Roman fictile ware, much of which has been obtained from the banks of the Medway and its tributaries. Those who would pursue the subject of ancient pottery, will be well repaid by the study of Mr. Birch's interesting volumes. The discovery of the kilns at Shepton Mallet adds one more to the list of Roman potteries already found in this island, and leads us to believe that they must have been more numerous than has been supposed, and that if care were taken to examine the sites of Roman occupation near to which beds of clay exist, many more would be brought to light, for it is most probable that the more common vessels, like those discovered at Shepton Mallet kiln, were manufactured in every part of our land while under the Roman dominion.

On the Strodes of Somersetshire.

BY MR. THOMAS SEREL.

THE name of Strode may be traced back to the time of the Norman Conquest, nearly eight hundred years ago. There are good reasons for assuming that the progenitor of the family, Warine de Strode, came to England with William the Conqueror. Soon after this he became Lord of Strode, in the county of Dorset, and from him branches of the family spread themselves over England, acquiring possessions, and forming connections in different parts of the kingdom—especially in Dorsetshire and in our own county of Somerset. They were, most of them, persons of good social position and wealth ; and some of them, in the most eventful times and under the most difficult and trying circumstances, stoutly stood their ground—resolutely resisting the oppressor; however powerful, at the risk of life and the certainty of suffering in person as well as in pocket.

In judging the acts of dead men we should study and endeavour to understand the history of the times in which they lived. We should then the better be enabled to form something like an accurate opinion of their characters, and not condemn that which we disapprove, or praise that which we on unjust grounds approve. This should be borne in mind when weighing and deciding on the political character

of several of the Strodes. When the name first became connected with Shepton Mallet I cannot undertake, with anything like certainty, to decide ; but it seems clear that the name has been well-known here for at least four hundred years. Collinson, in his history of West Cranmore, states that John Strode, son of William de Strode, was of Shepton Mallet, but he gives no date ; and from the same authority we learn that this John Strode was the great grandfather of William Strode, so well-known in our county history. It is a rare circumstance that the same family continues at one place for so many generations as the Strodes have at West Cranmore and the immediate neighbourhood. The good old county name is still borne by the possessor of Southill House, and may it so continue for many centuries to come ! Few persons can imagine the difficulties which attend the following out genealogical researches, tracing the pedigrees, and investigating the history of families ; but this is peculiarly the case in dealing with the Strodes. The unusual number of the members of this family, bearing the same name—William Strode—is remarkable, and this fact has led to frequent historical mistakes, and caused many and serious genealogical errors.

To William Strode, who is generally styled as William Strode, of Barrington, I desire, for reasons soon to be adduced, more particularly to invite attention. He was born about the year 1589, and proved himself in every way worthy the name he bore. On the maternal side his descent was as illustrious as it is interesting, his grandmother being no less a personage than a daughter of Robert Whitynge, brother to the Venerable Richard Whitynge, the last Abbot of Glastonbury, who was cruelly murdered on Chalice Hill, at Glastonbury, by

order of the tyrant, Henry VIII. The name of his grandfather was Edward Strode, who, I have no doubt, was a resident at Shepton Mallet, where several of the Whitynge family were also at the same time settled. His father's name was William, and his mother's name Elizabeth. She came from a family ancient and honourable as his own, the name of which was Upton. One of this family was living, and well-known in this county, about the middle of the 15th century. His grandson, John Upton, who resided at Frome, married Elizabeth, daughter of Edmund Leveredge, Esquire, of Vallis House, an old mansion near that town—sufficient remains of which still exist to attest its former extent and magnificence. The eldest son of that marriage, Geoffrey Upton, came to reside in this neighbourhood, viz., at Wormister, near Wells, in a fine old mansion there, which has recently been denuded of most of its ancient features—no rare instance, I regret to say, of effecting present improvements and restorations, as they are called, at the expense of obliterating valuable memorials of the past. This Geoffrey Upton married Mary, daughter of Thomas Home, of Devonshire. Their son and heir, George Upton, also lived at Wormister, where he maintained great hospitality, and was much respected by his neighbours. As a proof of his social position and worth I may here mention a fact but little known,—that he was elected as one of the representatives in Parliament for the City of Wells on two occasions—namely, Nov. 23rd, 1585, and Oct. 7th, 1601—in which capacity he served his constituents with zeal and good faith. Elizabeth Upton, the daughter of Geoffrey, and sister of George, was the wife of William Strode. This William Strode appears to have followed commercial pursuits, trading chiefly in Spain. In this honourable occupation he not only acquired great

wealth, but a reputation for integrity and honesty, which he carried with him until his death. About the year 1627 he purchased the mansion and estate called Barrington Court, in this county, and there he took up his residence. The abundance of his pecuniary resources enabled him to extend his landed possessions, and he soon became owner of considerable estates at Martock, Glastonbury, Street, and other places in Somersetshire. At Martock he founded and endowed a grammar school, and at Glastonbury he built and gave to the townspeople a town-hall, and at his own cost erected a bridge, called Cowbridge, thus enabling persons going from Glastonbury to Butleigh to cross the river with wheel conveyances, which before then they could not do. At Street, in his mansion there, he occasionally resided, and he is often described in legal documents as of Street, though much more frequently as of Barrington. In 1621 he married Joanna Barnard, daughter and heiress of Edward Barnard, Esq., of Downside, and thus acquired an addition to his fortune, and a more extended influence as a county squire. Richard Symonds, who accompanied King Charles and his army in many of their movements during the civil wars, wrote a gossiping kind of diary about many events and places which came under his notice. After speaking of the town of Shepton Mallet, he thus refers to the church, and to the Barnards and Strodes :—

“SHEPTON MALLETT CHURCH.—Within the north wall of the body of the church, under two arches, lyes the two statutes of two Knight Templars, crosse legged, in mayle, and shields upon their breasts. The roof of the church is curiously carved. Against the east wall, north yle of the church, is a small neate monument, with a picture of a man in armes—Captain Barnard, Esquire, 1640. Argent, a bear salient sable muzzled, Barnard. This is a market town. Mr William Strowd, one of the five members, married this Mr. Barnard's only daugh-

ter and heire (£2000 per annum). Strowd lived at Barrington, three myle from Ilminster. Another house at Street. Hath all the parsonages betweene this towne and Barrington. He gott his estate by being a factor in Spaine. His father left him (£740 in all). His father was a clothier in Shepton Mallett. Barnard is descended of a clothier in this towne too."

The date preceding this extract is July, 1643, but as to the year it is clearly a mistake. The correct date is 1644, for the following reasons:—King Charles, after the terrible battle of Marston Moor, marched to Bath, Monday, July 14th, and on the 18th July, 1644, was at Mells-park, then the seat of Sir John Horner, where hé held his court. On that day he addressed a letter to the corporation of Wells, asking for a loan of £500, which he promised to pay "when God enabled him to do so!" The citizens had been so impoverished by the plundering taxation and levies of both Cavaliers and Roundheads that the money could not be raised. They sent to the King £100 in cash, as a "free gift," together with 200 pairs of shoes for the army. The original documents may be seen on the walls of the Council Chamber at Wells. The letter has the autograph of his Majesty.

The times in which William Strode lived were as eventful as they were (for a time at least) disastrous to English liberties. He witnessed the commencement of the Great Rebellion, and was among the first who resisted the payment of the iniquitous and illegal tax usually called "ship money." This circumstance occurred in the year 1636. The officer whose duty it was to receive the tax, having demanded the money, was met by a positive refusal. Rather than pay he submitted to the indignity of a distress being levied, in which one of his cows was seized, which he replevied. The State papers contain many particulars of this distress, which led to some very unpleasant results.

In November, 1636, Lord Cottingham, Chancellor of the Exchequer, complained that the public service was "much obstructed by Mr. William Strode, the merchant, who had been distressed, and replevied, and that his example had been followed by Stradling and others." On that occasion he was examined by the King himself. In December, 1636, he was summoned before the Privy Council, but excused himself on account of illness in his house. After this (November 8th, 1637) the Bishop of Bath and Wells was deputed to examine Mr. Strode, as to his refractory conduct, and being called upon to answer in writing, he sent in an elaborate statement justifying himself, and exposing the illegality of the proceedings against him. Among the State papers is one in the handwriting of Sir Edward Nicholas, principal Secretary of State, containing a return and suggestions as to a proper person for sheriff, made by the judges of assize. In that paper the following names occur:—

"Somerset	{	Mr. Bull—Hath about £400 or £500 p'r ann.	} Both ret'd for being very refractory and dis-affected.
		Mr. Wm. Strode.	
		S'r John Horner	

An unfit man.

"It imports that there be a well-affected man in this county, w'ch is full of faction.

Mr. Tho. Smith, { of Long Ashton hath £2000 p. ann. a very
able man, and son-in-law to L'd Poulet,

S'r Tho. Wroth. { persons of good estate, and able men, but
S'r Edw. Barkley { I know not their affect's."

In 1642, when the Rebellion was progressing, he was resident for a time in Shepton Mallet. Active measures were being adopted for resisting the King and his advisers with armed forces. In the corporate records at Wells are to be seen numerous instances, plainly showing the feeling of parties at that time in this locality. Among the names

of many other persons that of William Strode is often found. I will give one or two instances. One is that of a warrant bearing his signature, a copy of which I here quote :—

“ To the Right Wor’ll Robt. Morgan, Mayor of Wells, and to Mr. Barth. Cox, Mr. Haskett, Mr. Salmon, Mr. Baron, and others of the Counsell of the Cittie of Welles, speed these :—

Gentlemen !—Our Lord Lieutenant of this County, the Noble Earle of Bedford, is now come amongst us with commission from the Parliament, and sufficient power and force to remove the grievance and settle the peace thereof, and had this day beene at your Cittie of Wells if we had been satisfied that there had beene fittinge entertaynment, for hym, whiche wee conceave could not bee without giveinge you notice of it : and although there bee divers of opinion that your Towne is verie ill affected to the peace of the Kingdome, and thereby would persaude us to desert it, yet wee conceave otherwise of itt, and that all honest and good men will to theire uttermost maintaine the Kinge, Parliament, and peace of the Kingdome : we have therefore intreated his Lordship not to desert you, assuring hym that hee shall fynde as faythfull service amongst you as in any Towne in this Countye. These are therefore to desire and intreate you that you forthwith provide a fittyng howse wythin youre Towne for the entertaynment of the great person, with other provisions needfull that may be had upon soe short a warneinge, for hymselfe and some twentie persons of his retinue, for fower or five dayes, which wee believe will bee his longest staye ; and whatsoever you shall disburse or undertake for in his provision, wee doe engage ourselves to see fullie satisfied. Desiringe your present answer by this bearer, that wee may know to what howse we may conduct his Lordship, who will be with you to-morrow about 2 o’Clock in the afternoone : soe commende you to God,—doe rest, youre lovinge freinds and neighbours,—Alex : Popham, Cle. Walker, Will : Strode, John Ashe.

Satturday Augt. 19. 1642.

Post sc.—We shall further desyre you to see all the stables in the innes and private stables provided and furnished with stores of litter, hay, and oates, for soe greate a retinewe as will attende soe noble a p’sonage upon a businesse of publike concernment.”

The Corporators, as required, at once answered the foregoing unwelcome epistle, promising the best “entertayn-

ment " they could get "uppon soe short a warneinge." On the following day they again met, and resolved that there should be " a hogshead of claret wine p'sented to the Earll of Bedford," at the cost of the town. Lord Bedford visited the city, but had no great cause to be satisfied with his reception. In the month of November following I find another warrant bearing Mr. Strode's name. The following is a transcript of this curious document :—

" The coppie of a warrant made by the Deputy-Lieutenants of the Parliament, viz :—

Som'sett.—Whereas, your citty and towne of Wells have heretofore mayntayned for the publike service of the kingdome, and the defence of the county, fower and forty trayned souldiers, well armed, viz., 23 pikes and 21 musketts, whiche sayde armes, and the men that are to serve therein, wee finde very defective ; and by the reason of the death of divers persons that performed those services somewhat unequally layd :— These are therefore in the name, and by the authority of Parliament, to will and require you that you take care to provide within your towne twentye good corsletts, with swordes and pikes, and as many musketts, with bandaleers, rests, hedd-peecees, and swordes, assigneinge and appoyntyng suffycient persons to serve the said fortye armes, easeinge you of fower armes, yf in case they may be spared, that you may the better furnish the rest ; and if any man that serves with foote armes and is fitt to serve on horse, you may leave hym oute, giveinge notice of such mens' armes. And further that you cause all these fortye armes and men to bee ready, completely furnished, to bee mustered att fower and twenty howers' warneinge for the present service, which requires greate expedition, in respect of the imminent dangers that threatens our peace. Whereof fayle you nott, as you will answer att your uttmost perill, and as you tender the safetie of his Majesties person, the Parliament, and kingdomes. Given under oure hands the 21st November, 1642.

WILL. STRODE,

CLE. WALKER.

To the Right Worshipfull the Mayor, Masters, and
Constables of the cittie and boro' of Wells."

I introduce these documents to shew how active a participator, Mr. Strode must have been in the proceedings of the Parliamentary party. The majority of the Wells people were Royalists, and therefore the interference of the Roundheads, as they were sometimes called, was by no means welcome.

As I have before observed, the number of persons bearing the same name—William Strode—has led to many mistakes. Most of those who now hear me will recollect that in January, 1642, five members of the House of Commons were, by order of the King, accused of high treason, the basis of the charge being the part they had taken in opposing his Majesty's unconstitutional proceedings. Among these five members was a William Strode. The similarity of name and principles caused William Strode, of Barrington, to be mistaken for William Strode, "one of the five members." Symonds, whose diary I have quoted, though he wrote when both were alive, committed the same error. Though William Strode, of Barrington, was at one time in Parliament, having been returned for the borough of Ilchester, and was in the Long Parliament of 1640, yet he could not have been "one of the five members" for these reasons :—William Strode, "the member," died in 1645, and was buried in Westminster Abbey, from whence his remains were ignominiously exhumed after the Restoration, viz., in 1661 ; but William Strode, of Barrington, did not die until 1666. The circumstances here noticed have caused much controversy among learned men, but about the facts as I have put them there is, according to the authorities I have consulted, little doubt, and these facts have been made still more clear by the Calendar of State Papers lately published by order of the Master of the Rolls, where may be seen the copy of a Proclamation

for the apprehension of William Strode, gentleman, *son of William Strode, of the county of Devon*, who was then accused of sedition, &c. William Strode, "one of the five members," was one of the representatives of the borough of Beer Alston in Devonshire, which was disfranchised by the Reform Act of 1832. The subject is interesting, and, historically speaking, not unimportant. I shall be glad to see it carefully investigated and settled beyond doubt.

The eldest son of the William Strode, of Barrington, about whom I have been speaking, bore the same name as his father, and seems to have inherited the principles of his parent. These principles were plainly shown in connection with the events which preceded "Monmouth's Rebellion." In 1680 the Duke of Monmouth set out on a tour through the provinces, including the West of England. He visited many of the leading gentry, and among them Mr. William Strode was honoured with the Duke's company, at Barrington Court, where a most sumptuous entertainment was given to the royal visitor and his retinue. Several years after this, namely, 1685, Monmouth resolved on making an attempt on the Throne of England. From the Continent he despatched trusty messengers to the leading gentry, and among them the advice and assistance of William Strode were solicited, and no doubt promised. On the Duke's landing at Lyme, June 11th, 1685, Mr. Strode sent him supplies of horses and money. Nor was William Strode the only member of the family who openly aided Monmouth. In his progress through this county he passed through Glastonbury on the 23rd June, and came to Shepton Mallet; there he was met by Edward Strode, of Downside, brother of William Strode, who presented the Royal rebel one hundred guineas. After the terrible battle of Sedgemoor, Monmouth fled from the bloody field towards

24 Sept.-2 Bushells and $\frac{1}{2}$ of beanes, at 4s. 4d. per bushell	10	10
„ Nicholas Olding for 1 hogshead of ale ..	2	0 0
„ Jo. Johnson, 4 days and 4 nights' attendance on <i>My Lord Jeffries</i> his coach horses ..	6	0
„ Webb and Kenfield for attending <i>My L'd</i> Baron Montague's coach-horses ..	6	0
„ 1 Night's pay for 8 horses to Jos. Elver ..	4	0
„ Allen and Lane for stables ..	6	0
„ Henry White for a Racke and Manger and Nails ..	10	
„ Fr. Law, by Dr. Smith's Order, for cleaning the Street ..	1	0
„ Fr. Rowden for 2 days' labour, 2s., and for watching 4 days and 4 nights ..	8	0
„ Mr. Henry Merefield's bill ..	18	4
„ Washing Linninge, 1s. 9d., and for 3 Napkins lost ..	3	6
„ 2 Knives lost and broaken, 18d.; besoms, 6d. ..	2	0
„ 1 Pewter plate lost, 13d; 1 duzzen spoons, 1s. ..	2	1
„ Skowering the pewter and re-carryinge ye borrowed goods ..	2	0
„ Mr. Paynter for course linninge ..	5	9
„ Gave Mr. William Pierce his servants ..	2	0 0
„ Thomas Perrie for a Chamber at ye Rose and Crown ..	4	0
„ Gave Goodwife Chisman fer lent of pewter ..	1	0
	19	5 7

This sum of £19 5s. 7d. was raised by a subscription in the city, except £4 12s. 11d., which Mr. Cupper himself was obliged to pay.]

After the accession of King William and Queen Mary, namely in 1691, Mr. Edward Strode having refused to take the required oaths, was fined £40, and in the following year an order was made by the justices at the quarter sessions that the oaths should be again tendered to Mr. Strode and if he still refused then that he should be committed to gaol.

Although I have dwelt at some length on the personal history of the sturdy old Somersetshire squire, William Strode, and several of his descendants and connections, yet there are other and more pleasing circumstances which

tend still more to increase our respect for the name. Few towns of the same extent can boast of more valuable charities than the town of Shepton Mallet. From the Strodes by far the greater portion of these endowments are derived. A desire to benefit and do good to the poor seems to have been a prominent feature in the character of this family. I have had an opportunity of examining extracts from more than thirty wills of the Strodes, and in nearly all there are gifts to the poor, or for some charitable purpose. Commencing in 1627, we find numerous benefactions for the benefit of the inhabitants of this town. In that year Edward Strode, Esq., then of London, and our good old friend, William Strode, of Barrington, vested in trustees "All that the scite and soyle of the Co'rt of the Mann' of Shepton Mallet" (which I assume to have been the manor-house), then converted into five almshouses, a chapel, school-house, and dwelling-house for the schoolmaster, together with the rectory and advowson and patronage of the Church of Meare; upon certain trusts (which were defined by subsequent documents,) for the inmates of the almshouses, and for the maintenance of a school for twelve poor scholars of Shepton Mallet, and otherwise for the poor inhabitants of the town. This Edward Strode died September 9th, 1641, aged 56, and was buried in Shepton Mallet church. In 1699, Edward Strode, of Downside, (no doubt the donor of the 100 guineas to the Duke of Monmouth,) vested in trustees four almshouses which he had built, for four poor old men, and gave a yearly sum for buying bread to be given away to twenty poor persons—£4 being of the gift of his grandfather Barnard, and £4 of his own gift. In the front wall of the houses he caused to be inserted a tablet inscribed with the following true though simple and brief memorial:—

“BVILT BY EDWARD STRODE OF DOWNSIDE
ESQVIRE FOR THE HONOR OF GOD AND TO
DOE GOOD. ANNO DOMINI 1699.”

This Edward Strode died in 1703, and his remains were interred in the “tomb of his fathers” in Shepton Mallet church, where his epitaph (truly expressing his character and worth) can still be seen :—

“Near this marble is deposited the pretious dust of Edward Strode, of Downside, Esq., the son of William Strode, of Barrington, esq. by Mrs. Johanna, the only daughter Edward Barnard, of Downside, esq. and the husband of Mrs. Joane Strode the daughter of Alderman Gonning, of Bristol, by whome he had five sons, and five daughters; who in his life-time was an excellent reflection of all the virtue and lustre he derived from his ancestors, and at his death fully recompenc'd the honour of his descent by leaving an unstained and polished mirror thereof to posterity; who in all respects, relating to God, his country, his own family, and to the household of faith, hath left an example to be justly admired, but rarely imitated. Reader, in short, if thou hadst the pleasure to know him, he needs no other praise but to be named. If thou wert a stranger to him, read some little more of his character upon his tombe. Turne it into practice, and thou shalt be acquainted with him hereafter. He having lived above seaventy years an exile here below (for such is our life on earth) being aged 73, he returned home to his native and heavenly country, the 28th of October, 1703. The signe given from thence to his approaching removal was on the Lord's day at his family devotion, and the fourth day after he ascended into his eternal Sabbath, where he rests from all his labours, and whither his works, which were wrought in God, have followed him. This monument his daughter and executrix hath erected to be both a joyfull and a sorrowful inemorial of him to his surviving relations and his christian friends; the former for his gain, the latter for his loss. Phil: I. 21. “For me to live is Christ, to die is gaine.”

ARMS. Quarterly. 1,—first and fourth, ermine; on a canton, sable, a crescent, argent. *Strode*. 2,—Argent; a bear erased, sable, muzzled, or. *Barnard*. 3,—gules; three guns in pale, argent. *Gonning*.

In 1712, Elizabeth, daughter of the said Edward Strode, endowed the almsmen of her father's almshouse with 6d. per week to each, and gave 20d. per week to ten poor old people of Shepton Mallet. When the Charity Commissioners were at Shepton Mallet, in 1816, they found that the gross income of the Strode charities was £434 6s. per annum. In addition to these endowments Thomas Strode, of Bowlish, and Thomas Strode, of London, gave certain lands at Shepton Mallet for the benefit of the poor of the place, the yearly income of which in 1816, was about £5. What the income of the whole of the Strode charities may be at this time I do not know, but I presume it has not decreased since 1816. With so large an endowment how much good may be and, no doubt, is done. For this the poor as well as rich of this town should be thankful. I wish I could see here, as well as in other places, some plan adopted for a periodical (say yearly) public recognition of the benefits derived from those who in their day delighted in doing good. An example of such a periodical recognition may be found in the yearly meetings in Bristol to do honour to the name of Colston, the philanthropist. I do not recommend the political gatherings of Conservatives and Liberals, but the model I would take would be the "Grateful" Society. I am convinced much good would result from an annual "Strode" commemoration at Shepton Mallet.

White Hall, in Ilchester.

BY THE REV. THOMAS HUGO, M.A., F.R.S.L., F.S.A., ETC.,
HON. MEMBER.

A STRANGER as he stands upon Ilchester Bridge can with difficulty believe that he has before him what was, until lately, the county town of Somersetshire. A street of no great length lies immediately in front, containing what are clearly four-fifths of the houses of the place. He is told that a building in the middle distance is the town hall, but of important or sacred edifices there are none that he can discern. On the right bank behind him is the site of the late county prison, now transformed into gardens. Immediately below is the river Ivel, whose waters during the summer hardly cover their channel, as they flow with a thousand windings through the flat country both above and below the town. The shore of the river on the town side is of little more apparent interest than the other parts of the landscape. That on the left of the bridge, which was built about forty years ago, is the garden belonging to a mansion in the street, raised high above the stream by a stone wall half concealed by weeping willows and other trees, and conspicuous for the care and skill with which it is tended. That on the right is a farm yard, also protected against the stream by a wall rising to the level of the ground, which is about fifteen feet above the bed of the river, full of goodly wheat-mows

and hay-ricks, and backed by modern agricultural buildings of lias and slate. If you cross the bridge, and pass through the wheat-mows in the yard to the fields beyond, you cannot fail to observe, as indeed you may in all parts of the town, that the walls of the enclosure are composed in great measure of the remains of former edifices, worked fragments of Ham Hill stone, used promiscuously with other materials. But, with this exception, neither the farm yard nor its boundary wall contains aught of archæological interest discernible even by the most practised eye.

And yet there is a melancholy interest which haunts the spot, destitute of ability though it appears of inspiring such a feeling. In old time the Ivel, as it swept from Ilchester Bridge, flowed on beneath the walls of a picturesque group of edifices, of which not a stone now remains in its former position. All is gone, save the fragments already alluded to, if indeed these have not been brought from other buildings in the neighbourhood, as is more than likely to be the case. Visible proof of ancient occupation the place has none. We are entirely dependent on the accounts of preceding travellers, and on tradition which still lingers among the old neighbours, for a knowledge of the fact that this farm yard is the site of White Hall of Ilchester.

Ilchester is full of such memories. It abounded with Churches and Religious Houses, and of the great majority nothing now remains save the mere recollection. The description of Leland, who visited the place in the earlier half of the sixteenth century, is very remarkable for the melancholy tone in which, contrary to his wont, the writer indulges. "The Towne of Ilchester," he says, "hath beene a very large thyng, and one of the auncientest Townes yn al that Quarter. At this tyme it is yn won-

derful decay, as a thing in a maner rasid with men of Warre. Ther hath beene in hominum memoria 4. Paroche Churchis yn the Toune, whereof one yet is occupied. The tokens of other 2. yet stond, and the 4. is clene yn Ruine.”* He “enterid by the South West into Ilchester, over a great Stone Bridge of vij arches, yn the midle wherof were ij. litle Howses of Stone, one on the right Hond, wher the commune Gaiol is for Prisoners yn Somersetshir. The other House on the lift Hond. The lesser of booth semid to me to have bene a Chapelle.”† This, as Stukeley thought, who was there in 1723, was Little Saint Mary’s Church,‡ many particulars in connection with which will be mentioned in the course of the history. From this point he could see White Hall, and of it he says :—“Ther is a fre Chapelle in the Towne, the bakside wherof cummith to the Ryver side even hard byneth the Bridge, and ther joynith a right praty Mansion House to this Chapelle. I have hard say That many Yeres syns ther was a Nunry wher this Chapelle ys.”§ In Stukeley’s time, and long before, both the Chapel on the bridge and this, which he calls White Chapel, had been “converted into dwellings.”||

Of the changeful fortunes of this last,—successively Hospital, Nunnery, and Free Chapel,—the reader shall now be furnished with such an account as from multifarious Records I can collect and glean for him.

Some time between the years 1216 and 1220, William Dacus, or Dennis, gave certain lands, enumerated in a charter which has been fortunately preserved in Bishop Drokenesford’s Register,¶ in and near Ilchester, for the

* Itin. vol. ij. p. 61.

† Iter vj. vol. j. p. 155.

|| Iter vj. Ib.

† Ib.

§ Itin. Ib.

¶ Reg. Drok. fol. lviii.

purpose of founding a Hospital to the honour of the Blessed Trinity, for the reception and entertainment of poor travellers and pilgrims, and in behalf of other sacred objects which are minutely enumerated and specified. A house in Ivelcester called White Hall is the first mentioned in this document, and from it, I presume, the Hospital derived its name. There was a family of Albe, or White, resident in Ilchester from a very early period, a member of which, John Albe, gave a shop, situated in Chepstrete, in that town, to Ralph Herward, as a marriage portion with his grand daughter Matilda. The same John appears as a witness to another deed, whereby William Cocul, of Lumynton, gives to the same Ralph, as a marriage portion with the same Matilda, his daughter, a messuage with appurtenances in Lumynton, with various other lands.* Both of these deeds are undated, but are of the time of Henry III. It is not improbable that, previous to its becoming the property of William Dacus, White Hall was the mansion of this family, and that, as I before remarked, the House thus acquired its characteristic name.

The founder was a man of considerable importance. It was to him, I conjecture, that a writ was addressed, dated at Waltham, the 18th of October, 1204, commanding him to deliver to William de Montacute, the castle of Sireburn.† To him, without doubt, the charter was granted, dated at Suwic, on the 12th of May, in the 5th year of the reign of K. John, 1204, by which that monarch gave to William Dacus six pounds and ten shillings of rent which he was accustomed to pay of the farm

* Ilchester Almshouse Deeds, communicated by the Rev. William Buckler, Nos. 60, 61.

† Pat. 6 John, m. 8. Add. MS. B.M. 9783, p. 78.

of Heywarder and Heching, and of other tenements with their appurtenances, which he held of the King in the burg of Ivelcestre, with the various rights of soc and sac, &c., belonging to them.* Nor can it be held improbable that the precinct which bears to our own time its old Saxon appellation of Soke Dennis obtained its distinguishing affix from this worshipful family.

The lands with which the Hospital was endowed by its good founder, and the pious objects which he had in view may best be learned by the terms of his charter. It occurs, as I have already observed, in the Register of Bishop Drokenesford, into which it was copied for security and preservation. I give it here in exact translation, and the original will be found in the Appendix.

"To all the faithful of Christ to whom the present writing shall come, William Dacus wisheth eternal salvation in the true Saviour. Know all of you that I, by motive of divine piety, have given and freely granted, and by this my charter have confirmed to our Lord God, in pure and perpetual alms, the house of Ivelcestre which is called White Hall, with all the messuage to the same house pertaining, and two houses hard by the same house which were in the tenure of Roger de Donehefd, and both the mills which I formerly possessed in the vill of Ivelcestre, with all the arable land which pertaineth to the aforesaid mills, and with one sester of meadow land† pertaining to the said

* Cart. 5 John, m. 3.

† "Cum uno sextario prati." In the copy of this charter, given in the Appendix to the Annals of John de Trokelowe, "sextario" is transformed into "sexclirio," of which new and obscure word both Hearne and Du Cange have propounded some learned elucidations! Had the original been consulted, their expenditure of time and sagacity would have been prevented. The MS. is perfectly clear, and the difficulty is one which owed its origin to the blunder of the transcriber only.

mills ; so that, however, my own corn and that of my household in the same mills be quit of all grinding dues. I have also given to God the house which was Aylward Lagga's, with all the messuage to the said house pertaining, and ten acres of land lying next to the said messuage, and eighteen acres of land which are called Heychyng, and five acres of land which are called Panchot croft, which lie in the north part of Pulbring, and two shillings of the service of the tenement of Henry the Carter, to wit, of one virgate of land at Sowe twelve pence, and of one messuage in the vill of Ivelcestre twelve pence, and seven acres of land which were of Haywarder, to wit, one acre which is called Battedeacre, and one acre which lyeth near to the house of the lepers, and two acres and a half in the west part from the house of the lepers, and two acres and a half which lie near to the land of W. Ruffe-gray towards Pulbringg ; to found a Hospital to the honor of God and the Blessed Trinity, to the support of poor, weak, and sick pilgrims, for the health of the soul of Richard, Bishop of Winchester, born at Sok, and for the health of the soul of his father and mother, and of his ancestors, and of all to him by consanguinity pertaining ; and for the health of the soul of Herbert, Bishop of Salisbury, and of his father and mother, and of his ancestors, and of all to him by consanguinity pertaining ; and for the health of the soul of Jocelin, Bishop of Bath, and of his father and mother, and of his ancestors, and of all to him by consanguinity pertaining ; and for the health of the soul of Adam de Ivelcestre, Dean of Salisbury, and of his father and mother, and of his ancestors, and of all to him by consanguinity pertaining ; and for the health of my soul, and of my father and mother, and of my ancestors, and of all to me by consanguinity pertaining ; and for the

health of the soul of Emma my wife, and of her father and mother, and of her ancestors, and of all to her by consanguinity pertaining; and for the health of all those who shall mercifully contribute their alms to the improvement and support of the aforesaid Hospital. This also I add, that I and my heirs shall present the wardens of the said Hospital to the Lord Bishop of Bath, in whose protection the Hospital is. And if it shall so happen that the warden of the said Hospital to the said Hospital shall not be necessary, I and my heirs only, and no other, shall remove the same, and another whom we shall see to be suitable, by the counsel of prudent men, shall there place in his stead. I and my heirs in the name of God will warrant all the lands aforesaid to God and the Hospital aforesaid against all men. And that this my donation may remain sure, and for the time to come may continue stedfast, I have strengthened the present charter by the apposition of my seal. These be witnesses:— Lord Stephen, Archbishop of Canterbury; Hugh, Bishop of Lincoln; Jocelin, Bishop of Bath; Richard, Bishop of Salisbury; Adam de Ivelcestre, dean of Salisbury; Geoffrey, Archdeacon of Berkshire; John, Chaplain of Lord Richard, Bishop of Salisbury; Master Luke, Canon of Salisbury; Hugh Malet, Gilbert Dacus, Richard Dacus, Richard Pauncefot, and Richard his son, Richard de Clyvedon, Bartholomew de Kemessing, and many others.”*

It is, of course, a matter of the first importance to fix the date of this foundation charter. It is assigned by Archer, Hearne, and Collinson, to about the year 1226. Each of these writers, however, is in error, as may without

* Reg. Drok. fol. lvij. Appendix, No. I. Abstr. in MS. Harl. 6964, pp. 21, 22.

difficulty be proved by an examination of the attesting witnesses. The Stephen, Hugh, Jocelin, and Richard of the charter were, respectively, Stephen Lancton, Archbishop of Canterbury ; from 1207 to 1229 ; Hugh Wallis, Bishop of Lincoln, 1209-1235 ; Jocelin de Welles, Bishop of Bath, 1206-1244 ; and Richard Poore, Bishop of Salisbury, first consecrated to Chichester on the 25th of January, 1215-16, and translated to Salisbury in May or June, 1217. Two other important names then occur—Adam de Ivelcestre, Dean of Salisbury ; and Geoffrey, Archdeacon of Berkshire. The latter is principally remembered from his place in this very document,* but the presence of the former, in connection with the last-named Bishop, happily reduces us to a much narrower interval than that to which we were previously restricted. Adam de Ivelcestre was elected to the Deanery of Salisbury on the consecration of his predecessor, Richard Poore, to the Bishopric of Chichester, which, as I have already stated, was on the 25th of January, 1215-16, and died on the 23rd of August, 1220. Accordingly to some day between May or June, 1217, the date of Richard's translation, and the 23rd of August, 1220, that of Adam de Ivelcestre's death, the charter of foundation must be referred. I fear that, in the absence of a direct statement in the document itself, this interval of three years is the closest approximation to the exact date which can now be arrived at.

Before we proceed a few words must be added about the founder and his family. I am indebted to the kindness of the Rev. William Buckler, the Rector of Ilchester, for the loan of several ancient deeds belonging to the Alms-house of that town, which throw considerable light on the

* Le Neve's Fasti, by Hardy, ij. 632.

history of White Hall. The earliest is one which, though undated, is to be referred to the reign of King John, the period of the foundation of the House. Several of the names are identical with those which appear in the charter which we have just examined. By it William Dacus grants to Herward, for his homage and service, a messuage formerly in the tenure of Pagan Hoper, together with other property, in consideration of an annual rent, of eleven shillings, payable quarterly, receiving as an acknowledgment half a marc of silver. The witnesses are Gilbert Dacus, Thomas de Cirencester, Robert Triz, Geoffrey of the Hospital, either, I presume, the warden or a brother of the House, William Raffé, William de Gedding, Henry Carter, Richard, clerk, and many others.*

I find also the first of these witnesses, Gilbert Dacus, attesting an agreement between the Dean and Chapter of Wells and John de Alre and Agnes his wife, concerning land on Saltmore. It is dated on the Festival of S. Mark, the Evangelist, 25th April, 1233, in the chapel of S. Gregory, of Stok, at Northcure.†

For upwards of twenty years after the foundation of the Hospital little or nothing seems to have been done to augment its revenues. Powerful friends, however, were soon to co-operate in aid of the institution. William, Abbot of Cernel, or Cerne, to the members of which affluent and magnificent Abbey belonged the advowson of the Church of S. Mary the Less in Ilchester, and an annual payment from the same, gave to the Hospital that Church and the revenue derived from it, with the concurrence if not at the instance of Jocelin, the good Bishop of Bath, with the

* Ilchester Almshouse Deed, No. 34.

† Reg. Wall. I. fol. 12 b.

special intent that among other advantages its inmates might have close at hand a chapel for the performance of Divine Service, instead of being compelled, as previously, to traverse the crowded streets in their way to the parish church. The rights of those parties, however, who had an interest in the arrangement which was thus altered, were carefully examined and respected. All this will be found clearly and minutely detailed in the letters of the Abbot and Convent of Cernel, and of Bishop Jocelin, in connexion with this transfer. They follow in Bishop Drokenesford's Register the foundation charter already given, and I have treated them in a similar manner. I may premise that Bishop Jocelin was the same as the prelate whom we have just seen attesting the charter of foundation, and that the Abbot of Cernel, or Cerne, was William de Hungerford, who received the royal assent to his election on the 30th of March, 1232.*

"A letter of the Abbot of Cernel, touching the ratification of the said appropriation :—

"To all the faithful of Christ, to whom the present writing shall come, William, by Divine permission Abbot of Cernel, and the convent of the same place, health in the Lord. We directed our letters patent to the venerable Father Jocelin, by the grace of God Bishop of Bath, after these words :—To the Reverend Lord and Dearest Father in Christ, Jocelin, by the grace of God Bishop of Bath, W. by Divine permission Abbot of Cernel, and the convent of the same place, health and devoted reverence in the Lord. Know ye, that we will for ever ratify and approve the ordination which you have made touching the advowson of the Church of Blessed

* Pat. 16 Hen. iij. m. 7.

Mary the Less of Ivelcestre, and touching the annual benefice which we have been accustomed to receive from the said Church. In witness whereof we have caused our seals to be affixed to the present writing. May your Father-ship ever fare well in the Lord—*'valeat paternitas vestra semper in Domino.'* The said Lord Bishop, on the receipt of these our letters aforesaid, by the counsel of men prudent and learned in the law, his assessors, ordained after this manner : namely, that we should continue to receive that annual pension which we have been accustomed to receive from the same church, to wit two shillings, during the whole lifetime of Thomas now parson of that church, and that the advowson of that church should remain for ever to the said bishop and his successors. He ordained also, that after the decease or cession of the said Thomas we should receive one marc yearly within the octave of the Assumption of Blessed Mary, in the house of Cernel, out of the revenues of the said church, by the name of perpetual benefice, by the hand of the rectors of that church for the time being, and should receive that marc quit of all ordinary burden. To the making of this ordination the anxiety and care which he felt for the Hospital of S. John Baptist of Ivelcestre, which Hospital is situated in the parish of the aforesaid church, induced the aforesaid Bishop, as he declared, that he might more easily and competently be able to provide for the celebration for the future of Divine Service in the chapel of the aforesaid Hospital. We therefore entirely ratify and approve the aforesaid ordination of the said lord bishop for us and our successors. In strength and testimony whereof we have to the present writing affixed our seals.”*

* Reg. Drok. fol. lvijj. Appendix, No. II.

To the letter quoted by the Abbot at the commencement of this epistle, Bishop Jocelin replied as follows :—

“A letter of lord Jocelin, Bishop, touching his ordination of the said appropriation.

“To all to whom the present writing shall come, Jocelin, by the grace of God Bishop of Bath, health. We have received the letters patent of the Abbot and Convent of Cernell in these words :—To the Reverend Lord, &c.” as above—“We, on receipt of the said letters, (inasmuch as a certain place is, with consent of the lord of the land, assigned by pontifical authority to the use of hospitality and the maintenance of poor persons, within the parish of the said church, in honour of the Holy Trinity, the care and thought whereof lieth upon us by our pastoral office,) considering the poverty and small estate of the said Hospital, and the loss which the brethren and sisters of the same sustain, who, leaving the world, for the service of God and the poor, under the habit of poverty have taken there the habit of monachism and religion ; and that, for the celebrating and hearing of Divine Service, they have necessarily had to hurry to the parish church among secular persons through the streets, to the disgrace of religion, inasmuch as in the said Hospital Divine Service might not be celebrated save by preserving intact the rights of the said mother church, by the counsel of men prudent and learned in the law, concerning the said advowson and church thus ordain :—namely, that the aforesaid Hospital and the brethren of the same shall have the advowson of the aforesaid church for ever. We grant also to the same that, on the ceasing or deceasing of Thomas, now rector of the same, they have the free ability by this our grant to convert the said church to their own uses, and to keep, and enter into possession of the same,

without in any way requiring the assent of us or our successors, so that they cause Divine Service to be for ever in the same by a fit chaplain competently performed. And that they henceforward pay yearly within the octave of the Assumption of Blessed Mary Virgin at Cernell to the Abbot and monks of the same place one marc out of the revenues of the same church, by the name of perpetual benefice, without any ordinary burden. As long, however, as the aforesaid Thomas, the present rector of the same, possesseth the said church, the said Abbot and convent of Cernell are to receive the annual pension of two shillings, which from it they have been previously accustomed to receive, so that the said brethren may have in the said Hospital a chapel of their own, in which they may cause Divine Service to be celebrated with striking of bells and other observances customary and necessary in the celebration of Divine Service. And that they may have a consecrated cemetery within the bounds of their Hospital, to bury their brethren and sisters and other persons who there shall think fit to choose to be buried ; with reservation always of the right of the parish churches of those who there shall choose to be buried. This ordination we make, reserving to us and to our successors the entire jurisdiction, power and dignity of our churches and ourselves ; and reserving to the archdeacons of the place their archidiaconal right, in recompense of which loss we will and appoint that to the same archdeacons the customary synodals every year be doubled. In testimony whereof we have to the present writing caused our seal to be affixed. Dated at Woky, on the day of the Conversion of S. Paul, in the year of grace one thousand, two hundred, and forty first.”*

* Reg. Drok. ff. lvijj, lvijb. Appendix, No. III.

The date of the founder's death I have not discovered, but I presume that about this time his son, John Dacus, or le Daneys, departed this life. For King Henry III. would seem to have commenced his 26th regnal year by granting letters of protection to the Master and brethren of the Hospital of the Holy Trinity of Iwelcestre and their dependents, the said letters to last to the coming of age of the heir of John le Daneys. The announcement stands first upon the Patent Roll, and is dated, witness the King, at Westminster, the 28th of October, the first day of his regnal year, 1241.* These letters would give the Society an immunity from all demands of the King's Ministers and other officers of account.

John le Daneys left behind him a daughter named Ela. To the task of her protection during her minority the King appointed a member of a well-known family, which will be found repeatedly mixed up with the subsequent fortunes of White Hall. By patent dated, witness the King, at Westminster, the 30th of January, 1241-2, was granted to Nicholas de Bolevill, the wardship of a moiety of all the land of John Dacus, which by the law of heirship came to Ela, the first-born daughter of the said John, together with the disposal in marriage of the said Ela; the said Nicholas to have and hold the same to the coming of age of the said Ela.†

The family of the founder was in possession of a small payment from White Hall at the time of the compilation of the Testa de Nevill, in or about the year 1270. The jurors reported that William Dacus had 2½d from the property, but that he did no service for it.‡

* Pat. 26 Hen. III. m. 13.

† Pat. 26 Hen. III. m. 10.

‡ Test. de Nevill, p. 161.

With this at the latest ends, though it may hardly be said to have more than begun, the history of the place as a Hospital. When or how the alteration was brought about we know not, but within ten years from the date last mentioned, even if it had not taken effect before, a change was made in its form of government, and it became a House of Augustinian Nuns under the rule of a Prioress. Probably it was induced by the feeling that the peculiar duties of such an institution were more likely to be satisfactorily performed by the agency of women than by that of the earlier rulers of the House. Be this, however, as it may, the first intimation which we possess of the change is presented by a document which is sufficiently curious and interesting to deserve a minute notice.

An inquest was held some time in the 9th year of King Edward I., or between the 20th of November, 1280, and the same day, 1281, and a verdict was returned on oath by Adam de Kary, William Tessun, William Cot, Thomas de Parays, John de Loveny, Gilbert de Taunton, Peter Le Rus, Nicholas de Tyntenhull, William Sclaume, William Ffoffard, Geoffrey de Tyntenhull, and Reginald de Kary, that one messuage in the vill of Ivelcestre was held of the Earl of Cornwall, by a service of one farthing a year for every service, and that the said Earl was chief lord of that messuage, and that another messuage was held of the same Earl, by a service of one halfpenny a year for every service; paying thence to Roger de Moles twelve pence a year only, without the receipt of any other service thencefrom. They presented that it would not be to the damage of the said Earl, if Cecilia Bagge and Robert her son should grant or enfeof the Prioress and Nuns of La Blauchesale of Ivelcestre, because the said Earl ought to receive the customs and services due from

the messuages aforesaid every year by the hands of the tenants of the said messuages. They further presented that four acres of land were held of John Shurek of Cilterne, by a service of one penny a year for all services, of the fee of John de Montacute, which was held of the King in chief by barony. Further, that one acre of land and a half were held of Hugh Hereward by a service of one penny a year; and one acre and a half were held of Adam Haghene by a service of one rose a year; and one acre of land was held of Thomas Bagge by a service of one half-penny a year, and were of the fee of the Earl Marescall by *iiij*^d of Sturgoyl; and two acres of meadow and a half were held of the heirs of William Le Deneys, who held them in chief of the King by a service of twelve pence a year. Further, that it would not be to the damage of the King if the aforesaid Prioress and Nuns were enfeoffed of the aforesaid tenements; and also that it would be similarly without loss to the lords of the fee if they were thence enfeoffed, inasmuch as nothing in the aforesaid tenements could accrue to them, unless only by escheat, if such should hap, or relief; and if an escheat should hap, that then it would be to the damage of the lords of the fee to the amount of *vj*^d a year from each acre of arable land, and from the two acres and a half of meadow *vj*^d only a year.*

It will be perceived at first sight that there is considerable obscurity in this document. It is the result of an inquest taken, I presume, at Ilchester, and an ancient but not contemporary endorsement attributes it to the year above given. It bears no date, however, nor mentions the fact of its having been taken before the King's

* Esc. 9 Edw. I. n. 79. Appendix, No. IV.

Escheator, though such, I apprehend, was the case. Nor can we be in any degree certain how much, or if any more, land beyond the two messuages held by Cecilia Bagge and Robert her son of the Earl of Cornwall was proposed to be given to the Prioress and Sisters, although it looks from the language employed as if the ten acres subsequently mentioned as held of John Shurek, Hugh Hereward, Adam Haghene, Thomas Bagge, and William Le Daney, were intended to accompany the gift. I even think I can trace some of these small tenements in the enumeration, just two centuries afterwards, of the various possessions of White Hall, when it had long undergone a third transformation.

By a deed which, although undated, is proved by internal evidence to be of the time of Edward I., formerly in the Dering Collection but now in my possession, Henry de Rocheford, or Rogeford, son of Eudo de Estwode, gave to Henry de Broke, Nichola, his wife, and their heirs, three acres of arable land called Litlemede, lying between the land of Henry de Broke, called Brudenewere, on the south, and the road, called the Morstrete, on the north; and seven acres of meadow, lying between the parcel of arable land, which is called the Castel, on the north of the said meadow, and the meadow of the Prioress of White Hall of Yvelcestre, on the south, which arable land and meadow were formerly held to farm of the said Henry Rocheford by William Ruffegre, with the reservation of a rent-charge of sixteen pence a year, payable to the commonalty of the town of Yvelcestre, at Hockeday, for all services, suits, complaints, secular demands, and all other outgoings at any time pertaining to the land aforesaid. Henry de Broke and Nichola his wife gave to Henry de Rocheford for this donation, concession, confirmation, and warranty, twenty-

four marcs and a half of silver. Witnesses : Sirs William de Givelton and Andrew de Putford, Knts., Thomas de Hengleby, John Herod, John Pol, Henry de Spekinton, John de Aula of Montacute, John de Broke, Robert de Bradeford, and others.*

Thomas de Speketone, son and heir of Henry de Speketone, no doubt one of the witnesses of the charter just before us, quit-claimed to Walter Cole, of Ivelcester, a tenement situated towards the North Gate of that town, to the east of the tenement of White Hall, formerly in the tenure of Thomas Axtil, and which was given to William, called the Carter, as a free marriage portion with Matilda, daughter of William de Speketone. For this acquittance Walter paid twenty shillings sterling. Witnesses : Peter de Draycote, William Cook of Lymyngtone, Robert de Scheptone, clerk, Thomas de Engelby, Master Robert de Nortone, John Love, Thomas Tigel. Dated at Ivelcester, on Sunday next after the feast of the Purification of Blessed Mary, in the thirty-second year of Edward I. ; which is coincident with the 9th of February, 1303-4.†

The Priory was without a Superior either by death or resignation in the year 1313. This is the first notice that we possess of the internal affairs of the House. On the Ides, the 13th, of December in that year, Bishop John de Drokenesford issued a mandate from London to the Archdeacon of Wells, or his official, to make the customary inquiries into the matter. On the 9th of the same month a commission had been addressed from London to Antony de Bradeneye and Hugh de Pencriche, who have already figured before us in the annals of Canyngton and Mynchin Barrow, empowering them, if the examination of the lady

* Appendix, No. V.

† Ilchester Almshouse Deed, No. 47.

presented to them for the vacant office were satisfactory, to admit and induct her into corporal possession.*

Like the sister Houses of Canyngton and Mynchin Barrow, White Hall was ordinarily committed to the oversight of some of the neighbouring clergy. At this time the generally unthankful office was entrusted to William de Modiford, rector of Tyntenhull, and William de Insula, rector of S. Mary the Greater in Yvelcester. A commission was addressed to them, conjointly and singly, dated at Kyngesbury, the 10th of July, 1315, respecting the care and administration of the House, which was to be exercised by them during the Bishop's pleasure.†

Five weeks afterwards the Bishop committed the wardship of the Sisters and their possessions to W. [William de Glydeford], Rector of Jerlitan [Yarlton] and Simon de Montacute, Knt. They were to render to the Bishop an account of their administration, when such should be demanded, and their commission was revocable by him, if and whensoever he might think proper to recall it. . The missive was dated at Woky, the 17th of August, 1315.‡

Alice de la Zerde, or Yard—a name probably derived from an estate in Ilchester belonging to the family of Boleville,—was at this time Prioress. Her misconduct unhappily compelled the Bishop's interference, and the employment of stringent measures for its correction. She was charged with extreme severity towards her Sisters, even to the extent of ejecting them from the House, and compelling them to beg for their daily bread. The Nuns applied to their Bishop, and implored with many tears his

* Reg. Drok. fol. cxlj.

† Reg. Drok. fol. lxxx.

‡ Reg. Drok. fol. lxxxjb.

aid and protection. He took their view of the matter, and sentenced the offending Superior to deprivation of her office. A commission, for the carrying out of this judgment by one or both, was addressed from Kyngesbury to Thomas de Gorges, precentor, and Hugh de Pencriche, canon of Wells, whom we have already seen employed on similar occasions at other Houses, on the 4th of the Nones, the 2nd, of November, 1315.*

The Prioress appealed to the Primate at Canterbury, and the matter was referred to his court for adjudication. Bishop Drokenesford wrote to the Archbishop, informing him of the unhappy and shameful circumstances of the case, the wrongs which the Nuns had endured, and their earnest solicitation that he would apply a remedy. As he says that he has his hands tied, "*manus ligatas obtinentes*," while the cause was pending in the Archbishop's court, he entreats the Primate to befriend the Sisters in their misery, and graciously to allow them a necessary maintenance in peace out of their own property in their House aforesaid, until the judgment of his court should be given. The Bishop's letter was dated at Kyngesbury, on the Nones, the 5th, of September, 1316.†

Alice de la Zerde was deprived of her office, and Alice de Chilterne was presented by the patron, Nicholas de Bolevill, and elected Prioress of White Hall.

The late Prioress was not alone to blame. It is certain that several successive wardens had most grievously neglected the duties of their office. John de Draycote and Walter de Wouburn were special and notorious

* Reg. Drok. fol. lxxxxij. Abstr. in MS. Harl. 6964, p. 33.

† Reg. Drok. fol. lxxxviiijb. Abstr. in MS. Harl. 6964, p. 36.
Appendix, No. VI.

culprits. The former had been placed in his post of responsibility by Simon de Montacute, to whom, as we have already seen, the wardship of the House had been committed, and the latter had been promoted by the King to the same office at the said John's suggestion, but had been for various reasons removed from it. Under their united mismanagement, and that of certain others, their accomplices and abettors, the property of the Hospital had been so consumed and wasted, that the Nuns were reduced to beggary, and the House itself seemed to have arrived at the close of its existence. So gross and palpable was the wrong done, that complaint was made to the authorities, and the whole matter came under the immediate cognizance of the law. The records furnish us with a minute account of the state to which the House had arrived, and the means by which an attempt was made to redress the evil. A writ in the first place was addressed to William de Bourn, John de Erle, and Nicholas de Wedergrave. The instrument sets forth that because, from the frequent complaints of divers persons, the King is given to understand that the goods of the Hospital of the Holy Trinity of Yvelcestre, assigned by the contribution of the faithful to the support of the poor Sisters of the aforesaid Hospital, had by John de Draycote, (whom Simon de Montacute, to whom the Escheator John Walewayn was asserted to have committed the custody of the said Hospital, under colour of a certain inquest taken by him *ex officio*, by which it was said to be discovered that Alice de Chiltern had been, at the presentation of Nicholas de Bolevill, son and heir of Nicholas de Bolevill some time defunct, who held the same in chief of the late King Edward, the father of the present King, promoted to be Prioress of the Hospital aforesaid, and, forasmuch as the

said Nicholas had not yet proved his majority, nor obtained the usual seisin of his estates from the King's delivery, had deputed) and also by Walter de Wouburn, (to whom the King had lately committed the custody aforesaid at the suggestion of the aforesaid John, and whom afterwards for certain reasons he had removed from the same,) and also by their accomplices and abettors, been wasted and destroyed, in so much that the said Sisters were by the want of care and deliberate malice of the said John and Walter now deprived of necessary maintenance, and were as good as reduced to a state of beggary and public exposure, so that, unless a very speedy obstacle should be put to the malice of the said John and Walter, there was a most probable fear that the said Hospital would be cleared out and irreparably destroyed,—the King, wishing to be more fully certified in respect of the premises, and, as well for the conservation of his right as for the indemnity of the aforesaid Hospital, justice to be done, appointed them or two of them to overlook the state of the aforesaid Hospital, and to enquire, by the oath of honest men of the county of Somerset, what and what manner of goods had been, by the aforesaid John and Walter and their accomplices and abettors, taken away or eloined from the Hospital aforesaid, and when, and by whom, and how, and in what manner, and also concerning the value of the same; and whether the aforesaid Nicholas, the father of the aforesaid Nicholas, held them on the day of his death of the King's father aforesaid, or of any heir then under age and in the King's custody, and how and in what manner; and whether the said Nicholas at the time that he presented the aforesaid Alice to the place of Prioress of the Hospital, as was aforesaid, was seised of the lands and tenements which had belonged to his aforesaid father, or not; and if so, then

by whom and how, and in what manner; and moreover what state the ancestors of the aforesaid Nicholas had in the Hospital aforesaid, on the occasions of vacancies of the same; and concerning all other matters affecting the premises, and to the restoration to the said Hospital of all the goods which they should find to have been taken and eloined from the same, and the delivery of them to the said Prioress and Sisters of the said Hospital for the support of the same; and also to compel and distrain the aforesaid John, Walter, and others, in whose possession such goods should happen to be found, according to the requirement of the law. They were further commanded to make, with certain whom they, or at least two of them, should appoint to this work, a personal visit to the Hospital, to inspect its state, to hold a diligent inquest in respect of the premised articles, to complete all and singular of the premises in the form aforesaid, and to inform the King of their proceeding, distinctly and openly, sending the inquest taken by them in respect of the premises, under their seals and the seals of them by whom it should be made, without delay, and the writ with the same. The sheriff was also commanded to aid and assist them in all and singular the aforesaid particulars. The writ was dated, witness the King, at Westminster, the 28th of June, 1316.*

I am sorry to be obliged in truth and candour to state that the Prioress, Alice de Chilterne, herself cannot be exonerated from great and criminal blame. That she had numerous enemies is certain, but her own behaviour would seem, unless we attribute the charge which now appears against her to the falsehood and malice of her detractors, to have been open to grave objection. A commission was

* Pat. 9 Edw. II. p. 2. m. 7, dors.

issued by the Bishop to Sir Henry de Birlaunde, (the 'Sir' was the honorary prefix to the name of a clergyman in olden times) Rector of Stok, and John de Herminull, to take into their charge the House and its revenues. The missive sets forth that it had come to the Bishop's ears, both by the sorrowful complaint of the Nuns and by the voice of public report, that Alice de Chilterne, the Prioress, stood publicly charged with the crime of incontinence with John de Passelewe, chaplain, and also with such daily waste and alienation of the goods of the House that her Sisters for lack of maintenance were compelled miserably to beg. That the Bishop had officially caused a diligent enquiry to be made into these matters, which had resulted in the discovery that the Prioress, without care of her duty and solemn vows, was guilty of great disregard of her Sisters, had kept and was keeping them so short of food that some of them were reported to have died of starvation, had converted the goods of the House to unlawful uses, and had squandered and consumed the same, to the grave peril of her own soul, the prejudice of her Sisters and House, and the loss and scandal of religion in general. That in kindly sympathy for the want and poverty of the said Sisters, for the spiritual benefit of the Prioress herself, and for the relief of the House and its inmates, the Bishop had without delay put the law in operation against the criminal, and that at length, as though conscious of her guilt, she had entirely and absolutely submitted herself, and her state, and that of her House to his ordination, arbitrament, and decree, in the presence of a public notary. That on account of various business in the King's service, beyond the limits of his diocese, he could not leave London, and was unable to carry out the proper and official arrangement of the affairs of the House until his return.

That, accordingly, confiding in their fidelity and industry, he had committed to them the custody of the said Prioress and her Sisters with their House and its appurtenances, of the custody and administration whereof they were to render him an account. He further urges them to do their utmost to provide the necessary maintenance for the Prioress and Sisters, as far as the ability of the House will permit, and to the best of their power to gather together what had been scattered by the misconduct of the Prioress, until he should return to his diocese and ordain otherwise according to law ; granting them in conclusion full power to restrain all opposition by ecclesiastical censures. The commission was dated at Dogmeresfeld, the 18th of September, 1323, and the fifteenth year of his consecration.*

Business, as it would appear, still detaining him in London, the Bishop issued four months afterwards a commission of discipline addressed to his Official, with whom were united Master Peter de Horselegh, rector of Staweye, and Master William de Modford, rector of Tyntenhull. He says that, inasmuch as it had been lately brought to his knowledge that the Prioress was publicly accused of the crime of incontinence, by reason whereof dissensions and murmurs had arisen between her and her Sisters, and numerous scandals had been created, he had committed to them, or any two of them, without waiting for the presence of the third, the full canonical power in his stead of exercising the office of visitation in the aforesaid House, of making enquiry touching the charges aforesaid and other things which needed correction and reformation, and of correcting and punishing the excesses of delinquents and of those who there aided and abetted such, of deposing and

* Reg. Drok. fol. ccxv. Appendix, No. VII.

depriving the same, and of informing themselves of all things pertaining to their investigation and its duties. The missive was dated at Wanton, the 29th of January, 1323-4, and the fifteenth year of his consecration.*

We have already seen that the Church of S. Mary the Less, at Ilchester, was appropriated to the House. A commission was addressed by the Bishop, dated at Stokwell, by London, on the 28th of March, 1324, to John, Bishop of Landaff, empowering him to reconcile the said Church, which had been polluted by effusion of blood, and the cemetery of the same.† The circumstances are not recorded, and conjecture would be vain.

The House had indeed to struggle against enemies numerous and almost insuperable. In the midst of the unhappy transactions which have just been before us, an atrocious outrage was inflicted upon it, which also became the subject of legal interference. It was clearly owing to certain members of the same unscrupulous party which had previously drawn upon itself the vengeance of the law. A writ was addressed to John de Stonore, Ralph de Bereford, and Elias de Godelegh, and states that the King has been informed by the grave complaint of the Prioress of White Hall, of Yevelcestre, that Nicholas de Boleville, John de Harminulle, John son of Peter de Draycote, John le Do, Nicholas de Sok, William Baller, and Nicholas le Deyer, and Agnes his wife, together with certain other malefactors and disturbers of the King's peace, had entered *vi et armis* the close of the said Prioress, being under the King's protection, at Yevelcestre, and had broken open the doors of her granges there, and had threshéd, taken,

*Reg. Drok. fol. ccxv. Abstract in MS. Harl. 6964, p. 84.

† Reg. Drok. fol. ccxviijb.

and carried away the corn then found in the same to the value of a hundred marcs, by which the lands of the aforesaid Prioress there remained uncultivated and unsown, and also with certain cattle had eaten, trodden down, and consumed the grass lately growing in the meadow of the said Prioress there to the value of ten pounds, and had inflicted other lawless injuries against her, in the King's contempt, and to the grave damage of the Prioress, contrary to the King's protection aforesaid and against his peace. Further, that because he was unwilling to leave that transgression, if it had been so perpetrated, unpunished, he had assigned them, or two of them, his Justices, to inquire, by the oath of honest and liege men of the county of Somerset, concerning the aforesaid evildoers, who together with Nicholas, John, and the rest had committed that offence, and to learn the truth in respect of the same, and to determine according to law, &c. The writ ended with the customary form as to the appointment of certain days and places for the investigation, the reservation of the King's rights, and the order to the sheriff of the county for his assistance in the execution of justice. It was dated, witness the King, at Tonebrigge, the 26th of June, 1324.*

The ecclesiastical commission of the previous year had by this time produced its effect. Prioress Alice de Chilterne was deprived of her office. In a missive to Sir Nicholas de Bolevill, Knt., patron of the Priory, dated at Wyvelescombe, the 3rd of April, 1325, the Bishop gives a brief summary of the case, and requests him to present a fit and proper person to the vacant post.†

* Pat. 17 Edw. II. p. 2. m. 6. dors. Appendix, No. VIII.

† Reg. Drok. fol. ccxxxviiijb.

Cecilia de Draycot was the lady who succeeded, but, as it would appear, was hardly more qualified for her place than her unworthy predecessor, though her fault was of a different character. The first intimation which we have of this is presented by a commission from the Bishop, Ralph of Shrewsbury, who succeeded Bishop John de Drokenesford on the episcopal throne of Wells, on the 2nd of September, 1329, dated at Clavertone, on the 1st of September, 1334, addressed to the Rectors of Lymington, and S. John's, Ivelcestre, and informing them that for certain reasons he had seen fit to sequestrate the possessions of the House, of which he commanded them to take the charge. They were to supply the Sisters and servants with necessary maintenance only, until they should receive other instructions.*

The Prioress was not only incapable, but also had to govern a very unruly community, and was unable to stem the torrent which opposed her. It was a breach rather of conventual rule than of morality, which nevertheless in the opinion of a strict disciplinarian called for summary punishment. As in the instances before given, the vigilant eyes of her ecclesiastical superiors were soon directed to the fact, and exposure and punishment followed in quick succession. A commission was addressed to Master Richard, rector of Lymington, and Master Thomas, rector of Cherletonemakerel, the terms of which set forth that, although the Bishop had in his confirmation of her in her office committed the administration of the goods of the House to his beloved daughter, Cecilia de Draycot, the Prioress, yet having the greatest confidence in the fidelity and industry of Agnes Chaumpflour and Agnes de Wyn-

* Reg. Rad. fol. lxxxvjb. Abstr. in MS. Harl. 6965, p. 82.

terbourn, Sisters professed in the same House, he desired that the Prioress should exercise the administration aforesaid by the inspection and counsel of the said Sisters, whom, for certain causes moving him thereto, he had specially deputed so to act. He, therefore, commands them, and each of them, to intimate this arrangement to the Prioress, and in his stead and by his authority to strictly enjoin her that in the exercise of her office she should employ the aid of those Sisters, and the Sisters themselves that they should not omit to render the same. He proceeds to state that it has come to his ears by public report that some of the Sisters, not only without the licence, but also in opposition to the inhibitions of the Prioress, whom by their vow they were bound in canonical and lawful things to obey, were accustomed to wander through the streets and lanes of Ivelcestre, and elsewhere, the modesty of their sex altogether banished, and against the honor of their order; and sometimes, which was worse, did without scruple or fear enter the houses of secular and suspected persons, and in a multitude of other ways did not hesitate to disobediently transgress the canonical commands of the said Prioress, to the scandal of holy religion and the manifest peril of their own souls. That, unwilling to leave such things under a cloke without correction, as indeed he was bound not to do, lest their blood should be required at his hands, he firmly enjoins them and each of them to make diligent enquiry, as often as shall be necessary, about the matters aforesaid and others appertaining to the state of the said House, and to enjoin salutary penances, in his stead and by his authority, on those whom they shall discover to be guilty of the aforesaid or other excesses, in proportion to the degree of their crime, according to the discretion

given to them ; and to canonically compel by ecclesiastical censures the performance of the penances so adjudged, as they should in law answer for the same, touching which he charges their consciences. To the performance of all and singular of the aforesaid acts he concludes by committing to them, and each of them, full power and authority in his stead. The instrument was dated at Banewell, the 7th of August, 1335, and of his consecration the sixth.*

Several of the Deeds connected with the Almshouse at Ilchester, to which reference has been made, supply us with very valuable and interesting information during this and the following centuries. It must, nevertheless, be recollected that, in a series of documents, preserved for the sole reason that they relate to property afterwards given to another Religious Establishment, we cannot expect to find more than a kind of oblique information about persons and places which did not happen to form the subject matter of the particular document itself. The deeds, however, as we shall see, supply us, *inter alia*, with the names of two Prioresses hitherto unknown, and also identify the site of the House with the spot which tradition has ever assigned to it. Their value, therefore, can hardly be estimated too highly.

Walter de Miltone, son and heir of John de Miltone, granted to John Stagon and Elen, relict of Adam de Waltham, various lands, and among them half an acre above Overmere, adjoining the land of the Prioress of White Hall. Witnesses : John de Barrye, John Attefourde, John Vag, John Turke, John Pigatz, John Englysshe, John le Ffaconer, and others. Dated at Chilterne Vagge, on Sunday next after the feast of the

* Reg. Rad. fol. cxxvij. Abstr. in MS. Harl. 6965, p. 93.

Annunciation of the Blessed Virgin Mary, 14 Edward III., or the 26th of March, 1340.*

Cecilia, the Prioress, with her Sisters Alice de Chitterne, (I presume the deposed Prioress) Joan de Wynterbourne, and Agnes Chaunflour, and Thomas de Codeworthe, were parties at Somerton, on Monday next after the feast of S. Peter ad Vincula, 16 Edward III., the 5th of August, 1342, in a case against Gilbert Passeware and Simona his wife, who were represented by William atte Brook, their attorney, on the question of a corrody alleged to have been granted to Simona by the Prioress and Convent. A deed was exhibited, containing an agreement under the Conventual Seal to give to Simona le Lyt, for a certain sum of money, a place within the Priory close, thirty feet long and fifteen broad, on which she was to build at her own expence, together with a corrody of one Sister in a seat daily at the table of the Prioress, with attendance, a habit and veil every year, and all other necessities proper for a Sister, for the term of her life, or an equivalent of five pence a week in lieu thereof.† The judgment is not known, as the case was carried over to another term, the recorded proceedings of which do not contain it. It was probably settled in the interim.

Alice, widow of Hugh Dodul, granted to Stephen, her son, her tenement in Chepstret, opposite the Church of S. Mary the Less, and adjoining that of the Prioress of White Hall. Witnesses: John atte Broke, etc. Dated at Ivelcestre, on Monday, the feast of the Assumption of the B.V.M., 19 Edward III., or the 15th of August, 1345.‡

Thomas de Moltone, called Baker, and Agnes his wife, gave to John Josep, of Ivelcestre, and Alice his wife, and

* Ilchester Almshouse Deed, No. 22. ‡ No. 46.

† Assis. Rott. Div. Com. 2 }
N } 3. mm. 56, 57.
22 }

her heirs, a tenement in Chepstrete, adjoining one pertaining to White Hall. Witnesses: Thomas de Broke, and others. Dated at Iwelcestre, on Sunday next before the feast of the Apostles SS. Simon and Jude, 23 Edward III. ; or the 25th of October, 1349.*

John Cole, of Bruggewatere, granted to Walter Blaunkpayn and Juliana his wife, a burgage with a small curtilage, situated in the main street of Yevelcestre, opposite the Church of Blessed Mary [the Less], between the burgage which formerly belonged to John Draycote, and the burgage of Mary, Prioress of the Nywehalle. The property was to be held for the life of the survivor, at the annual rent of a rose on the feast of the Nativity of S. John Baptist, together with all due rents and services. Witnesses: Robert Pryvyere, John Rypon, Walter Fletchere, John atte Wille, John Vysshene, William Wynsam, and many others. Dated at Yevelchestre, on Friday next after the feast of Pentecost, 44 Edward III., which is coincident with the 7th of June, 1370.†

This document is of peculiar interest, as it furnishes us with the name of a hitherto unknown Prioress. It would also seem from the change of appellation that the House had lately been either enlarged or rebuilt. It is not, indeed, improbable that the previous structure was included in the ravages of a fire which a short time before appears to have destroyed a considerable part of Ilchester. I have found on the Patent Roll of the 40th year of Edward III., an order of that monarch, dated, witness the King, at Westminster, the 12th of May, 1366, commanding the Sheriffs and Justices to hold their Courts, Assizes, Sessions, etc., in Iwelcestre, only, for the

* Ilchester A.D., No. 6.

† I.A.D., No. 26. Appendix, No. IX.

amelioration thereof, which by divers calamities was much depauperated and depressed.*

All this while, and for many years afterwards, the House bore its full share of the miseries which surrounded it, and was hardly struggling with poverty. The same generous hands, however, which we have noticed in the histories of other Somersetshire Nunneries, were not wanting in beneficence. The help was well-timed, and speaks much for the estimation in which, contrary to other appearances, the community was held.

A writ was addressed to Adam atte More, the King's Escheator in the county of Somerset, dated, witness the King, at Westminster, the 5th of November, 47 Edward III., 1373, with the usual questions as to the damage or otherwise of permitting Guy de Brien, Robert Fitz Payn, Richard de Acton, Roger Pede, parson of the church of Astynton, John Bays, and Walter Laurence, to give one messuage, four tofts, thirty acres of land, and seven acres of meadow, with their appurtenances, in Ivelchestre and Sokedenys, and William de Melburn, to give one messuage and five acres of land, with their appurtenances, in Ivelchestre, to the Prioress and Sisters of White Hall, of Ivelchestre, and their successors, for the increase of their maintenance. The writ concludes with the customary enquiries as to the services, value, owners, &c., of the property. The inquest in obedience to this was taken before the aforesaid Adam atte More at Ilevelchestre, on Monday next after the feast of S. Matthew the Apostle, 48 Edward III., or the 26th of September, 1374; and the jurors, Richard Britz, John Bosse, Hugh Vocle, John Wirchestre, Richard Hacche, William Sherpe, Richard

* Pat. 40 Edw. III. p. 1. m. 29.

Appelyn, Richard Greyleg, Richard Hastyns, John Lamb, Adam Bat, and Thomas Smyth returned upon oath that it would not be for the damage or prejudice of the King or others if such permission were accorded. In answer to the other questions they presented that the lands proposed to be given by the six first named donors were held of the King in free burgage as of his burg of Ivelchestre, by the service of a yearly payment to the bailiffs of the said burg of four shillings at the feast of S. Michael, as parcel of the fee of the farm of the burg aforesaid, and doing suit at the burg court twice a year for all services, and that they were worth in all issues, exclusive of the rent and suit aforesaid, xx^s a year. That the land proposed to be given by the last named donor was similarly held of the King in free burgage, as of his burg aforesaid, by a yearly payment to the bailiffs of three shillings and sixpence at the feast of S. Michael, and doing suit as aforesaid, and that the value beyond such service was vjd. That there was no mesne between the King and the aforesaid donors. They further presented that there remained to the aforesaid Guy one messuage and one carucate of land with appurtenances in Ievelchestre, held of the King in free burgage, and worth in all issues x^{li} a year; to Robert Fitz Payn the manor of Stokecursy with its appurtenances, held of the King in chief by knight service, and worth in all issues xx^{li} a year; to Richard de Acton the manor of Thornfaucon with its appurtenances, held of the Bishop of Winchester by knight service, and worth in all issues x^{li} a year; to Walter Laurence one messuage and one carucate of land with their appurtenances in Bycchenstoke, held of the Bishop of Bath and Wells by knight service, and worth in all issues xx^s a year; and to William de Melbourn one messuage with its appurtenances in

Ilevelchester, held of the King in free burgage, and worth in all issues iiij^s a year; beyond the gift aforesaid. That no lands or tenements remained to Roger Pede, parson of the Church of Astyngton, and John Bays, beyond such gift. That these lands remaining to the donors aforesaid were sufficient for the customs and services due from them. In witness whereof the said jurors annexed their seals, the day, place, and year aforesaid.* The letters patent recount the particulars of the lands already given, with the names of the several donors, the extent, and the united value of the property, and give the desired permission on the payment by the Prioress of six marcs. They add to the object previously stated that of finding daily a wax taper at high mass before the high altar in the Priory Church, and are dated, witness the King, at Westminster, the 4th of March, 1374-5.†

Matilda, who has not hitherto occupied a place in the modern lists of the Superiors, was Prioress in 1377. In the account of Stephen de Pemple, Dean of Wells, of the names and contributions of the beneficed and unbeneficed clergy of the Diocese, the former taxed for a subsidy at xij^d, and the latter at iiij^d, in that year, I find the name of Dame Matilda, Prioress of White Hall, with her one Sister, "cum una sorore sua," taxed together at ij^s.‡ I believe that at this period, as in the year 1423, and probably at other times, the little Community consisted of two members only.

A proof of the poverty of the House is furnished after this period by the constant exemption of the Nuns, in conjunction with their Sisters of Canyngton and Barrow, from the payment of the King's disme. Certificates of

* Esc. 48 Edw. III. (2 nra.) n. 30. MS. Harl. 4120, pp. 199, 200.

† Pat. 48 Edw. III. p. 1. m. 26. ‡ Cler. Subs. $\frac{4}{1}$ m. 6.

the exemption are dated the 17th of May, 4th Henry IV., 1403;* and again the 2nd of February, 1403-4;† and the 12th of October, 1404.‡

Another hitherto unnoticed Prioress is now to be introduced to the reader. Among the contributors to a subsidy of *vj^s viij^d*, from every Chaplain and Religious, granted by Convocation to King Henry IV., in 1406, occurs Cristina, Prioress of the Poor Sisters, Rector of S. Mary the Less, in Iewelcestre. The Bishop's letter to John, Abbat of Clive, authorising the collection, is dated the 22nd of June, 1406.§

The head of the family of Bonville was the ordinary patron of the House; and an instance now occurs, where one who filled that position did not forget the moral obligation which was annexed to it. Sir William Bonville left behind him a will, made on Saturday before the feast of the Assumption of the Blessed Virgin, the 13th of August, 1407, and proved before Edmund de Stafford, Bishop of Exeter, at Crediton, on the 24th of March, 1408. It is a document characteristic of mediæval times, and gives us a grand idea of an old English worthy whose heart and hand were ever open. He bequeathes, *inter alia*, the following sums to Somersetshire Houses:—To the Friars of Ilchester, 100^s. To the Nuns there, 10^l. To the Friars of Bridgewater, 100^s. To the Abbey of Glastonbury, 40^l. He also leaves 40^l for masses to be celebrated for him and all Christian souls, for the space of two years, by four several priests, viz., one at Shete, (Shute, near Axminster, where he usually resided) one at Meriet, one at Woodbury, and one in the Nun's Church at Ilchester; each priest to receive 10^l for

* Reg. Bowet, fol. xxxiiij. † Ib. fol. xxiiij. ‡ Ib. fol. xxvj.b.

§ Cler. Subs. $\frac{4}{20}$.

this service. It would strike a modern with surprise to be told that his bounty went far beyond private or personal objects of interest. Thus he leaves 100 marcs in aid of the bridges and roads in Somerset and Devon. To his tenants at Lymyngton, he gives 20 marcs, and 20 quarters of corn from his grange at Socke. To his tenants at Meriet, twelve, and to his poorest tenants at Thurlebere, ten quarters of corn. To the Church of Stoke Denys, his smallest missal. To Alice Hogges, of Thurlebere, 10 marcs. To John Strecch, 20^l; and to John Mascal, 50^s. A codicil gives to the anchorite at S. Leonard's, near Exeter, 50^s; and fifty cows to as many poor men and women.*

John Hubarde, of Yevele, son and heir of Isabella Hubardes, sister of Alice, widow of John Josep, granted to Robert Veel a buirgage, with appurtenances, in Chepstrete, between a tenement held by Thomas Ffolqui of the heir of William Bonevyle, and a tenement of the Prioress of White Hall, opposite that of John Courteys. Witnesses: William Whittoke, William Nywetone, John Brys, John Drapere, John Mascalle, and others. Dated at Yewelchester, the 12th of September, 10 Henry IV., 1409.†

Six years after this the Priory received one of its most important acquisitions of property. The nature of the transaction will be best understood by a careful study of the following documents. They constitute a most valuable and instructive series, which cannot but be of great interest to the Somersetshire reader, and present also for the general student a lively example of the system of feudal tenure which was a special characteristic of the age.

* Reg. Staff. Ep. Exon. Coll. Top. et Gen. viij. 244-6.

† Ilchester Almshouse Deed.

A writ was in the first place issued, witness the King, at Westminster, on the 1st of June, in the first year of Henry V., 1413, addressed to the Escheator in the county of Somerset, and commanding him to take the sense of a jury upon oath as to whether it would be to the damage or prejudice of the King or others, or not, if licence should be granted to John Strech, Robert Veel, William Gosse, William Neweton, Bartholomew Dure, and John Mascall, to give and assign seven messuages, one garden, and ten acres of land with appurtenances in Taunton and Shireford, and to the aforesaid Robert and William Shourte, to give five messuages and six acres of land with appurtenances in Yevelchestre, to the Prioress and Sisters of the House of White Hall of Yevelchestre, in aid of the maintenance of a Chaplain to celebrate for ever every day at the high altar in the church of the Holy Trinity of Yevelchestre for the souls of Joan, sometime wife of John Stourton, and of William Whittok, and for the souls of the parents of the said Joan and William Whittok, and for those of all the faithful departed. Also at the anniversaries of the said Joan and William Whittok every year on Thursday in Easter week in the aforesaid church, with Placebo and Dirige on the eve of the same day, with mass of Requiem with music on the same day at the altar aforesaid, to be held, observed, and solemnly celebrated for ever. The usual questions follow, to which the jurors were to return specific answers; namely, as to the precise injury, if any, which such licence would inflict, the persons from whom, and the services by which the lands were held, their true yearly value, the mesnes, if any, between the King and the aforesaid John and his fellows, and the lands which would remain to the aforesaid if the solicited licence were granted, for their sustaining and satisfying

the suits, views of frank-pledge, aids, tallages, and other feudal demands on the aforesaid donors, so that the country might incur no injury from the transaction, &c. The inquest thus ordered was taken at Yewelchestre, on the Friday next after the feast of S. Peter ad vincula, in the first year of Henry V., which in that year was coincident with the 4th of August, 1413, before Richard Stucle, the King's Escheator; and the jury, William Ponton, William Gorewell, Thomas Gane, Edmund Dygher, William Rodebere, Almaric atte Wethy, John Stert, John Dolle, John Bochell, Robert Petenyn, John Pytte, and William Smyf-famour returned a verdict on oath that it would not be to the damage or prejudice of the King or others if such licence were given, and for the purpose aforesaid. They presented that the aforesaid seven messuages, garden, and ten acres of land with appurtenances in Taunton and Shireford were held of the Bishop of Winchester, as of his manor of Taunton, in socage, by the service of a payment to the said Bishop of xij^s x^d at the four principal terms of the year, in equal portions, and doing suit of the court of the said Bishop at the two days appointed by law to that purpose, namely hokkeday and Michaelmas, yearly at Taunton for all other services. That the lands were worth yearly in all issues according to their true value beyond reprises forty-six shillings and ten pence. That there was no mesne between the King and the aforesaid John and the others, save only the aforesaid Bishop. They further presented that the five messuages and six acres of land in Yewelchestre were held of the King in socage, by the service of an annual payment of eight pence on the feast of S. Michael the Archangel, and doing suit at Yewelchestre on the two days appointed by law for all other services. That the lands were worth in all

issues according to their true value xxij^s vj^d a year. That there was no mesne between the King and the aforesaid Robert and William Shourte. And further, that the manor of Radewell, with appurtenances, which was held of the Bishop of Bath by knight service, and was worth yearly in all issues xx^{li}, remained to the aforesaid John Strech; that two messuages, one hundred acres of land with appurtenances in Shepton Beauchamp, held of Robert Seymour by knight service, and worth yearly xv^s, and four messuages with appurtenances in Bryggewater, held of Lord de la Souch in socage, and worth yearly xl^s, remained to the aforesaid William Gosse; that two messuages with appurtenances in Yewelchestre, held of the King in socage, and worth yearly xx^s, remained to the aforesaid William Neweton; that one messuage, twenty acres of land with appurtenances in Wollavyngton, held of John Tochet by knight service, and worth yearly xx^s, remained to the aforesaid Bartholomew; that one messuage, sixty acres of land with appurtenances in Stapulton, held of William Bonvile by a service of x^s a year for all services, and worth yearly xl^s, remained to the aforesaid John Mascall; and that one messuage, sixty acres of land with appurtenances in Mertok, held of the Duke of Clarence by a service of v^s a year and worth yearly lx^s, remained to the aforesaid William Shourte, beyond the gift and assignment aforesaid; which were sufficient to meet the customs and services as of the lands proposed to be given, so for those which were retained by the respective possessors, and for all other burdens which they were accustomed or ought to sustain. Also that the said John, Robert, William, and the rest could be placed in any assizes, juries, and other recognizances, as they were accustomed to be before the gift aforesaid. So that the country would receive no

unusual burden or grievance by the transaction. In witness whereof the jurors affixed their seal to these presents. Dated in the day, year, and place aforesaid.* The letters patent were accordingly granted, after the payment by the Prioress of twenty pounds, and are dated, witness the King, at Westminster, the 24th of March, 1414-5.†

The Sisters are exempted from payment of the disme, in a letter of John Roland, Vicar General, dated at Wells, the 1st of March, 1416-7,‡ and in one of Nicholas, Bishop of Bath and Wells, dated at Dogmersfeld, the 26th of December, 1419.§

Cristina, Prioress of White Hall, and Joan Whyttokes, Nun and Co-sister of the same Prioress, John Peny, Thomas Drapere, Gilbert Bouche, and David Hawes granted a power of attorney to John Smythe, of Northovere, to deliver for them and in their name to Robert Veel, Richard Serle, and John Glainville, full and peaceable seisin in and of all lands and tenements lately belonging to Mark Whyttok in Northovere and Somertone. Dated on Tuesday next after the feast of S. Michael the Archangel, in the second year of Henry VI., or the 5th of October, 1423.||

The same parties, Cristina, Joan, and others, leased and confirmed the lands aforesaid to Robert Veel, Richard Serle, and John Glainville. Witnesses: Nicholas Moleyns, John Welwetone, jun., John Smythe of Northovere, Richard Dole, and others. Dated on the same day as the preceding document.¶

* Inq. ad q. d. 3 Hen. V. n. 14. MS. Harl. 4120, p. 314. Appendix, No. X.

† Pat. 3 Hen. V. p. 2. m. 27. Appendix, No. XI.

‡ Cler. Subs. $\frac{4}{40}$ § Cler. Subs. $\frac{4}{42}$

|| Ilchester Almshouse Deed, No. 11-98. Appendix, No. XII.

¶ Ilchester Almshouse Deed, No. 12-99. Appendix, No. XIII.

I presume that the Nun, Joan Whyttokes, of these documents was a daughter of the William and Agnes Whittok of the Patent. I should not forget to add that Robert Veel was the founder of "the House called Almeshous," at Ilchester, in 1426. The family was known in the town from an early period. I have found that a Robert Vele was collated by Bishop Drokenesford to the chantry of Blessed Mary, in the greater church of Ivelcestre, void by the death of William Glyde, on the Ides, the 15th, of July, 1312.*

Prioress Cristina was party in a suit, against Ralph Durburgh, William Hamme, Walter Wey, John Dyker, William Plays, and John Naysse, of plea of assize of novel disseisin, and appointed as her attorney William Rider, or Gilbert Bouche, at Yevelchestre, on Tuesday next before the feast of S. Cuthbert, Bishop, 5 Henry VI, the 3rd of September, 1426† The case had been carried over from the assizes at Taunton, on Monday next after the feast of the Nativity of the Blessed Virgin, the 9th of the September previous.‡ I find, however, no further notice of it.

Robert Veel and John Lane granted to John Lyte a burgage then not built in Yevelchestre, in the High Street, between a tenement of the Prioress of White Hall, lately in the occupation of Margery Carpottes, on the east, and the house called Almeshous on the west, opposite the gate of the Preaching Friars. Witnesses: Richard Purge, Thomas Seymour, then Bailiffs of Yevelchestre, Nicholas Coker, and others. Dated at Yevelchestre, the 2nd of March, 7 Henry VI., 1428-9.§

* Reg. Drok. Abstr. in MS. Harl. 6964, p. 17.

† Rott. Assis. Div. Com. ^N2 } 1. m. 112.
42

‡ Ib. m. 101 dors.

§ Ilchester Almshouse Deed, No. 13-117.

William Borde, of Badecombe, granted to William Boneville, Giles Daubeneye, and Thomas Beauchampe, Knights, and to John Stourtone, Alexander de la Lynde, Robert Veel, Nicholas Yonge, clerk, John Beoff, John Gregory, John Bolour, Edward Coleforde, John Baret, John Guldene, Hugh Kene, William Shourt, Henry Grey, John Pupelpenne, Richard Serle, Henry Havegode, and John Glainville, a burgage then not built in Yewelchestre, near the Market Place, between a tenement of the Prioress of White Hall, lately in the occupation of William Tancarde, on the north, and the tenement which once belonged to John Cole of Bruggewater, to the west, in which the gaol of old time used to be. Witnesses: Richard Purye, Thomas Seymour, Bailiffs, Edmund Dommere, Nicholas Coker, David Hawes, and many others. Dated at Yewelchestre, the 6th of March, in the seventh year of Henry VI., 1428-9.*

The same William Borde appointed David Hawes and John Denman his attornies to deliver to the aforesaid parties full seisin of the property aforesaid. Dated the 7th of March, 1428-9.†

Notwithstanding the various donations which have been successively related, the Prioress and her Sisters could with difficulty obtain a maintenance. Of the number of the inmates of the House we have no knowledge, or of their consequent requirements. But the fact that it was miserably poor is unquestionable, and, indeed, the subsequent history of the Sisterhood is to be read in the series of certificates which state their necessary exemption from the payment of the King's disme. These simple an-

* Ilchester Almshouse Deed, No. 15-115.

† Ilchester Almshouse Deed, No. 59-116.

nouncements are continued for a number of years, and poverty and privation are the burden of the tale. I have found in the Episcopal Registers the following instances.

With those of Canyngton and Barowe, and the Hospitals of S. John Baptist, Wells, and Bridgwater, the poor Nuns of Ivelchester are exempt, in a certificate dated at Wells, the 29th of June, 1416.*

The same are exempt, in a certificate dated at Wells, the 2nd of January, 1416-7.†

The Church of S. Mary the Less is returned in 1417 as very poor, and as not taxed nor accustomed to pay the disme. And it is added that on account of its extreme poverty there is no endowed vicarage in it. The officers who furnish the return profess themselves unable to discover from the Bishop's Registers and evidences, although they had carefully inspected and searched them,—“*registris et evidenciis ejusdem reverendi patris penes nos diligenter inspectis et scrutatis*”—the period from which the Church aforesaid had been appropriated to the House. It was, as we have seen, in the time of Bishop Jocelin, and soon after the year 1241. The certificate is dated at Wells, the 15th of January, 1416-7.‡

With the Nuns of Canyngton and Barewe the Sisters are expressly exempt, in a certificate dated at Wells, the 10th of January, 1417-8.§

Again, by name, in a certificate of the 3rd of March, 1417-8.||

Again, by name, in answer to a brief dated the 19th of December, 1419.¶

* Reg. Bubwith, fol. cxvb.

† Reg. Bubwith, fol. cxxviiib.

‡ Reg. Bubwith, fol. cxliiij.

† Reg. Bubwith, fol. cxxvij.

§ Reg. Bubwith, fol. cxxxviiib.

¶ Reg. Bubwith, fol. clxixb.

In a certificate of the estimated value of benefices not taxed, the Church of S. Mary the Less is returned as of the value of xx^s. Dated at Wells, May, 1426.*

The Nuns of Ilchestre are, by name, together with those of Barwe and Canyngton, returned as exempt, in a certificate dated at the Bishop's Inn in London, on the 6th of February, 1435-6.†

This is the last notice that I have been able to discover, where the Nuns of Ilchester are mentioned by name. As the readers of my histories of Canyngton and Barrow are aware, there are various exemptions of those Houses for a long time subsequent to this period, indeed until a very few years before the date of their dissolution; but after the present entry the Sisters of Ilchester find no memorial, and the Priory of White Hall henceforth occurs no more.

It would be easy to speculate on the causes and mode of its suppression. Had the catastrophe, however, been the result of any fresh scandal, the Episcopal Registers, which at this period are in a perfect state, would have been certain to furnish us with the particulars. We are relieved, therefore, at least from this suspicion. The most probable conclusion is that it shared the fate which seems inseparable from Ilchester foundations in general, and that, after a long and difficult struggle for existence, it succumbed to the dire necessity of the *res angusta domi*, and languished through paralysis into natural dissolution.

Before I proceed with the annals of the Institution into which it was transformed, a few words will be necessary to complete its history.

It will be well in the first place to give such a list of the Prioresses as I have been able to furnish, referring the

* Reg. Stafford, fol. ix.

† Reg. Staff. ff. cxxjb. cxxij. Cler. Subs. $\frac{4}{67}$.

reader to my previous pages for the details connected with each :—

1. Alice de la Zerde, or Yarde, occurs in 1315; was deprived in 1316.
2. Alice de Chilterne, or Chitterne, occurs in 1321, 1323, and 1324; was deprived in 1325.
3. Cecily de Draycote occurs in 1334, 1335, and 1342.
4. Mary in 1370.
5. Matilda in 1377.
6. Cristina in 1406, 1423, and 1426.

Agnes Chaumpflour and Agnes de Wynterbourn were Sisters of the House in 1335, and Joan Whyttokes in 1423.

I have already described the present appearance of the site of the Priory. It lay on the bank of the Ivel,—between which and its buildings the town wall was the only barrier, which snugly surrounded it on its north and west sides,—and close to the North Gate. The entrance was in Chepstrete, the most populous thoroughfare of the town, close to the County Prison, and immediately opposite its impropriated Church of S. Mary the Less. Its architectural peculiarities are unknown, though we may hazard the very probable conjecture that, when first consecrated to its sacred use, it was already an ancient structure, dating from a period commencing at the very latest with the reign of King John, and presenting the noble features of the “Early English,” if not the sombre severity of the “Norman” style, and that subsequently it was, either wholly or in part, rebuilt during the still more gorgeous “Decorated” æra. Although from its position it was necessarily confined, there was room abundantly sufficient for an edifice of no mean pretensions to architectural excellence. Mediæval builders did not require large spaces, or what are called fine sites, for the erection of their inimitable works. Angular spots and of irregular outline, at which most of their modern suc-

cessors would stand aghast, were apparently welcomed by those all-accomplished workmen as what might elicit the powers of minds to which difficulties seemed to be created only to vanish and be overcome.

I reserve for a future page the full enumeration of the possessions of the House, where it will be given in its chronological place, in connection with the dissolution of the establishment into which it merged.

I have hardly need, in conclusion, to draw the reader's attention to the salient points in the history of the Priory, and among them the vigilant supervision of their ecclesiastical superiors which the Nuns of White Hall so constantly experienced. While the exemplary zeal and tenderness with which the Bishops discharged their duty, and that on occasions of great and varied difficulty, must be apparent from the foregoing narrative, it is equally evident that no attempt was made to palliate or overlook irregularities, to hinder their exposure, or to evade their punishment. Unhappily, there was in this instance only too frequent a necessity for episcopal interference, and the severities which it brought in its train. On a review of the annals of White Hall I am constrained with sorrow to admit that it is by far the worse example of a Mediæval Nunnery that I have ever met with. It cannot, of course, be denied that immoralities acquire a notoriety which virtues do not usually obtain, and that, while we have minute information of the former, the latter have frequently no earthly memorial. True as this is, and admitted to the full, White Hall must be allowed to have been on many occasions an exception to the general excellence of such establishments, all the more conspicuous from its evil rarity. It was not an ordinary specimen of a Religious House, as some may be pleased to imagine, but

one which, on the contrary, mainly owed its rescue from oblivion to the crimes and scandals which disgracefully signalized it.

It will be recollected that our last notice of the Sisterhood was a declaration of their poverty in the year 1436. Between that date and 1463, twenty-seven years afterwards, White Hall suffered its third transformation and became a Free Chapel. We have here an entirely different, though to many an equally interesting, subject of enquiry. By this term some have understood those Chapels which had been founded within parishes by the devotion of parishioners for such of the inhabitants as lived remote from their parish church, and which had no endowment but what was of the gift of the founder or other benefactors. Others have taken a Free Chapel to mean that, being built by the liberality of some good man as a chapel of ease to the Mother Church, it was "Free" to the parishioners, who were bound to attend the latter, to come or not to come to it as they pleased. And yet others have maintained that such Chapels were "Free," inasmuch as they were of the King's foundation, and exempt from the jurisdiction of the Diocesan. The last definition I hold to be correct. The first is clearly inapplicable to the Free Chapel of Ilchester, as it was not only not remote from but had the main street only between it and the Parish Church. In the case before us there was evidently a simple change from a Priory to a Chapel, the latter enjoying the same revenues as the former, which, however inadequate to the support of a Sisterhood, were sufficient for the maintenance of a single priest.

The history of Free Chapels, as well as of the Chantries, with the fate of which they were closely united, is

part of that of the Church at large. This of White Hall is deserving of particular attention, as its annals may be taken as a specimen of those of similar foundations in the mode in which the presentations to it were made, the manner in which it was served, and the order of its suppression and final alienation from the objects of its founder.

Before we proceed to the series of Incumbents, the notice of a transaction which took place in the interval just referred to must not be omitted.

A subsidy was demanded of the Clergy in the year 1445, to aid the King against the Saracens and Turks. On this occasion the Church of S. Mary the Less was taxed at *iiij*^d. The return bears date the 8th of May, 1445.*

The Episcopal Registers supply us with the following Incumbents of White Hall.

In a list of the Chaplains with their cures in the Arch-deaconry of Wells and Deanery of Ylchestre, from whom a subsidy was levied, occurs the first in the person of John Bonez, of Ylchestre, against whom stands the sum of *vj* *viii*^d. The return is dated at Banewell, the 3rd of September, 1463.†

This date is specially important, inasmuch as it fixes that of the change of the Institution from a Priory to a Free Chapel to some period between the 6th of February, 1435-6, and the 3rd of September, 1463, an interval of twenty-seven years.

Although John Bonez is simply described as Chaplain "of Ylchestre," we learn that he was the Chaplain of White Hall by the entry which announces his death and the appointment of his successor.

On the last day but one of November, 1485, William Elyott, one of the clerks of the King's chancery, was

* Reg. Bekynton, fol. xxviiijb.

† Reg. Bek. fol. cclxxxx.

admitted to the Church or Chapel of White Hall in Yew-chestre, vacant by the death of John Banys (evidently the John Bonez of the entry of 1463), the last incumbent, to which he was presented by Henry, by the grace of God King of England and France, the true patron.*

On the 10th of March, 1497-8, Bishop King collated William Soper to it by lapse.†

On the same day, Thomas Edyall was presented to the Church of S. Mary the Less.‡

On the 20th of August, 1502, the Churches of S. Mary the Less and S. John Baptist were united to S. Mary the Greater. The small revenues of each of these churches are stated to be wholly unequal to the fitting and decent maintenance of two rectors, and that they were accordingly united for ever and made one parish, with reservation of all episcopal and archidiaconal rights. John Chaundeler, rector of S. Mary the Greater, was the first rector of the united parishes.§

On the 30th of August, 1519, Master John Moyne was admitted to the perpetual and Free Chapel of Whitehall, void by the death of William Soper, the last "possessor," on the presentation of Richard, Bishop of London, Edmund, Bishop of Salisbury, Sir John Fineux, Knt., Chief Justice of the Common Pleas, Sir George Nevile, Knt., Lord of Burgavenny, and Sir Robert Poyntz, Knt., the Feoffees of the said Chapel, at the instance and request of Henry Stafford, Earl of Wilts.||

On the 3rd of May, 1525, Walter Cokkes, LL.B., was presented to the Free Chapel of Whitehall, void by the

* Reg. Stillington, fol. cxxx.

† Reg. King, fol. xiiij.

‡ Reg. King, ib.

§ Reg. King, ff. ciiijb, ciiij. Abstr. in MS. Harl. 6966, p. 167.

|| Reg. Wolsey, ff. vij, vijb. Abstr. in MS. Harl. 6967, p. 26b.

death of John Moyne, "ultimi custodis seu gubernatoris ejusdem," on the presentation of Sir Richard Gray, Knt., and John Arundell, Thomas Golde, and John Bonvile, Esquires, for that turn only, by the grant and concession of Edmund, late Bishop of Salisbury, Sir George Nevell, Knt., Lord Burgevenny, and John Fynex, Justice of the Common Pleas, the Feoffees.*

In 1535, during the incumbency of Walter Cokkes, the "Valor" was taken of all ecclesiastical property. I have too frequently described the nature and objects of this return, to do more on the present occasion than to record the fact. The following is an exact translation of the entry descriptive of the revenues of White Hall :—

WHITEHALL CHAPEL.

WALTER COCKES, PERPETUAL CHAPLAIN.

Yearly value of the Free Chapel in rents

of divers parcels of land, viz.,

In Yevelchestre, ..	xiiij ^{li} xix ^s iiij ^d	} xviiij ^{li} xiiij ^s viij ^d
In Taunton, ..	iiij ^{li} xij ^d	
In Sock, ..	.. xiiij ^s iiij ^d

From thence deduct,

In rents resolute to the King for land

in Yevelchestre xxv^s

To the Lord Marquis of Dorset for

land in Chestremede v^s

Salary of John Cuffe, steward .. x^s

To the Bp. of Winchester, for rents

resolute of land in Taunton .. iiij^s

xliiij^s

And there remains clear .. xvj^{li} ix^s viij^d

The tenth from thence .. xxxiiij^s xj^d ob. q.†

* Reg. Clarke, ff. 16b, 17. Abstr. in MS. Harl. 6967, p. 37.

† Val. Eccl. Com. Som. fol. lxiiij. Vol. j. 199.

On the 7th of April, 1545, at Wyvellescombe, George Carew was admitted to the Free Chapel of Whythall, in or near Ivelchester, void by the death of the last incumbent [no name given], on the presentation of Michael Mallet, gent., patron for this turn only.*

On the 28th of June, in the 37th of Henry VIII., 1545, this George Carew, clerk, Archdeacon [of Totness, 1534-1549], and master of the Chapel, leased its property to Thomas Dewport, for a term of forty years from the Lady-day last past, at the annual rent of £16 10s. This sum constituted its endowment.

It was the last time that the lands were let to lease for the maintenance of the incumbent, and in conformity with the intent of the ancient donors. The Monasteries, greater and less, had already become the victims of sacrilege at once mean and remorseless. Chapels and chantries were now threatened, and it seemed to many that Parish Churches would soon follow, and that everything out of which money could by any possibility be extracted was destined to be sacrificed to the accursed greed of a band of reprobates, with whom gain was godliness, and so-called Reformation a cloke for the basest and most shameless robbery.

In Hilary term, on the first day of February, the 36th of Henry VIII., 1544-5, Sir Edward North, Chancellor of the Court of Augmentations, exhibited in the said court a warrant with sign manual of the King, and petitioned for it to be enrolled, which was accordingly done. It ran as follows: "Henry theight" etc. "To our righte trustie and welbeloued Counsaillour Sir Edwarde Northe knyghte

* Reg. Knight, fol. 24b. Abstr. in MS. Harl. 6967, p. 54.

Chauncellour of our Courte of thaugmentac'ons of the reuenues of our Crowne gretyng Where dyuerse and sondrye Colleges hospitalles* ffree Chappelles and Chaunteryes for dyuers causes and confiderac'ons by the voluntarie surrendours gyftes and grauntes of the Deanes Maisters incumbentes and cheefe gouernours and of the Canons bretherne fellowes and Mynyfters of the same are diffolued and co'men to our handes, In confiderac'on wherof our mynde and pleasure is to gyue to the Deanes Masters incumbentes and cheife gouernours of the saide Colleges hospitalles free chappelles and Chaunteries and to the Canons bretherne fellowes and Mynyftres therof hauyng perpetuall stipendes or lyuynge in the same before the diffoluc'on therof suche annuities or yerly so'mes of money or other reuenues or yerly proffectes for their lyuynge for terme of their lyues as shalbe mete and conuenyent vntill suche tyme as the same persons shalbe otherwise adu'nced or promoted by vs to so'me benyfice or benyfices or other condygne promoc'on to the clere yerly value of suche annuities or yerly reuenues as shalbe assigned to theym for their said lyuynge ffor asmuche as we confideryng the causes of our weightie affaires cannot withoute greate paynes and inquietnes conuenyently attende and assigne the saide annuities and lyuynge of the saide perſones nor to assigne the warrauntes of the patentees therof to be made and graunted to theym with suche conuenyent spede as our pleasure is the same to be donne for the spedye dispatche ease and quyetnesse of the same perſones, knowe ye that we trustyng in your fydelytie and approued wisedome doo gyue vnto you by these presentes full power and auctoritie to appoynte and af-

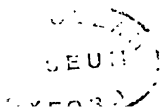
* The contractions in the original are here given in italics.

figne frome tyme to tyme aswell to the Deanes Masters incumbentes and cheife gouernours as to the Canons bretherne fellowes and other Mynysters hauyng perpetuall lyuynges of suche Collegies hospitalles free chappelles and Chaunteries whiche be nowe dissolued and co'me to our handes or hereafter shalbe dissolued and co'me to our handes in maner and fourme aforsaide suche annuyties or yerly so'mes of money landes tenementes parsonages or other reuenues or yerly profites being or hereafter to be within the ordre and survey of your office as you shall thinke mete and conuenient by your discrecion according to the behavours degrees qualities and condicions of the same persones for terme of their lyves or vnto suche tyme as the same persones shalbe otherwise aduanced or promoted by vs to som'e benyfice or beny-fices or other conding promoci'ons to the clere yerly value of the same annuyties or other reuenues so to theym assigned for their livinges, and that you shall and maye make Co'myssions vndre our greate seale of our Courte of thaugmentaci'ons of the reuenues of our Crowne to practise conclude and agre with the saide Deanes Maisters incumbentes cheife gouernours and other Mynystours of the saide Collegies hospitalles free chappelles and chaunteries for thassigne and appoyntment of suche annuyties or so'mes of money yerly or other reuenues so to be assigned to theym for their lyuynges vppon the surrendour of the same Colliges hospitalles free chappelles and Chauntries, and that you by vertue hereof shall and maye make in our name seuerall lettres patentes of the saide annuyties yerly so'mes of moneye or other yerly reuenues so to be assigned to euery of the saide persones in due fourme vndre the greate seale of our saide Courte of thaugmentaci'ons of the reuenues of our

Crowne remaynyng in your custodye frome tyme to tyme And this byll assigned with our hande shalbe to you sufficient warraunte and discharge frome tyme to tyme withoute any other byll assigned or other warraunte to be sued frome vs in that behalfe Eny statute acte ordyn^ance or prouyfyon heretofore had or made or eny other thyng cause or matter to the cont^ary not withstondyng.”*

The failing health of the King, combined with some qualms of conscience which appear to have visited him in the last years of his life, prevented for a while the carrying into effect of this atrocious scheme. With the accession, however, of his weak and ill-directed successor, the hopes of those who craved for further aggrandisement from the patrimony of the Church revived, and means were not long wanting of putting their design into execution. The Act for the suppression of Hospitals, Chapels, and Chantries was passed in the second year of Edward VI., and surveys were immediately taken of their endowments and possessions of every kind, with a view to the disposal of them by sale. The return of the Chapel of White Hall presents as plain and business-like an inventory of the property and appointments, as if they were those of some ordinary estate which had never been solemnly consecrated to holy uses. I give it exactly as it stands. The “plate and ornaments” were happily rescued from the hands of the robbers. The bell which had called the worshippers to prayer was not so easily concealed, and therefore makes a prominent figure among the items of the spoil.

* Miscell. Books, Off. Augment. vol. 104, (Orders and Decrees, vol. xiv.) ff. 109, 109b. (2nd. nrs.)



IL- CHESTER Burrowe	The ffree Chapell of the holy Trynytie of Whyte- hall ther.	Is yerely wo'the in	THE rent of the same Chap- ell w ^t all the landes, tent ^{es} , and hereditament ^{es} belonging to the same, letten to farme to Thom's Duporte. for terme of xl yeres. by Indenture da- tyd the xxviij th daye of June in the xxxvij th yere of the reigne of oure late soueraigne lorde of famouse memory Kinge henry the viij th as in the same Indenture more playnly maye appere		XVJ th X ^o
			Plate and Or- nam ^{tes}	None	
		Memor ^d .	George Carrowe clerke in- cu'bent ther. The Chapell is scituate w'in the towne of Ilchester. No fundac'on shewed.*		

BELL metall c lb.

At the same time a minute survey was taken of the lands belonging to the Chapel. These had been the property of the Priory, as will be seen from many of the particulars, which vividly recall to our thoughts the ancient donors and their benefactions. I have fortunately discovered the original return in a volume of miscellaneous papers among the Harleian MSS. in the British Museum, and, as it is a document of primary importance to the complete understanding of our subject, I give it in English,

* Certificate of Chantries, No. 42. n. 138.

but without abridgement, and as nearly as possible in its original form. It presents a complete picture of the possessions of the Chapel on the 25th of June, in the second year of Edward VI., 1548.

Rent of the Chapel aforesaid, with manor house of the same and garden adjacent, per annum	x ^s
Rent of one close of pasture called Hichins, containing xx acres, leased to Richard Beton and others, for term of life, by indenture, per annum	lx ^s
Rent of one close of pasture called Five acres, leased to John Sampson and others, by indenture, for term of life, per annum	v ^s
Rent of one tenement with iij acres of arable land and one acre of meadow in Sockemersh, and of a fifth part of one close of pasture called Newmede, and of iij acres of meadow of Sockemersh, of the demesne of the lord, leased to John Whettell and others, by indenture, for term of life, per annum ..	xiiij ^s viij ^d
Rent of one tenement with xiiij acres of arable land hard by the Spittell, and of iij acres of meadow, of which two acres lying hard by the Cawsey, and the other acre hard by the Spettill, and of one close of pasture containing vij acres hard by the Mille in Ilchester, leased to Thomas Bloughton and others, by indenture, for term of life	xxxiiij ^s viij ^d

The Chapel of Whitehall

Is worth in

Rent of one tenement in the borough of Ilchester, with one acre of arable land in Coleplate, in the plain of Lymmyngton, and of one acre of arable land lying in Worthehill, and of one acre of arable land hard by Newe close, of one acre of meadow in Newe mede, and of one acre of meadow in Sockemersh, and of one barn, with iiij acres of arable land hard by Mowrewaie, and of one malthouse in the borough of Ilchester, with one acre of arable land called Batteacre. Also of ten acres of pasture lying outside the Bowe, in the borough aforesaid, leased to Humphry Blowghton and others, by indenture, for term of life, per annum

lxij^s iiij^d

Rent of one close of pasture, called Corne Spetill, containing by estimation x acres, leased to John Belly and others, by indenture, for term of life

xxvj^s viij^d

Rent of vj sesters of meadow, each sester containing one acre and half a rod in Ilchester, now leased to the aforesaid John Bellie and others, by copy, per annum

xiiij^s vj^d

Rent of one tenement and iij acres of arable land, and of one acre of meadow in Sockemersh, of ij acres and a half of meadow in Fotesmede, and of one acre of meadow in Newmede. Also of two small

xij^s vj^dxix^{li} xiiij^s vj^d

closes, called Hemplandes, leased to William Owyn and others, by indenture, for term of life, per annum

Rent of one tenement, and iij acres of arable land, and of one acre of meadow, and of the fifth part of one close of pasture called Newmede, with iij acres of meadow in Sockemersh, of the demesne of the lord, leased to John Whigon and others, by indenture, for term of life, per annum

xiiij^s viij^d

Rent of one water mill for corn, with one close called the Milham in Ilchester, leased to William Berde and others, by indenture, for term of life, per annum

xl^s

Rent of one curtilage, with garden adjacent, hard by the Shamell, and of viij acres of pasture in Chilterne lease, in the parish of Chilterne Domer, leased to Thomas Rodde and others, by indenture, for term of life

ix^s ij^d

Rent of one tenement, with garden, and of iij acres of arable land, of one acre of meadow in Sockemersh, of one acre of meadow in Newclose, and of ij acres and a half of meadow in Fotesmede, leased to Joan Roper, widow, per annum ..

xiiij^s iiij^d

Rent of v acres of pasture, lying in the close called Newclose in the plain of Ilchester, leased to John Cuffe, per annum

v^s

Rent of three tenements, or bur- gages, in Taunton, and of viij acres of meadow in the same place, leased to John Walferde, per annum ..	xxxiijs viij ^d
Rent of two tenements, or bur- gages, with gardens, in Taunton aforesaid, leased to Robert Bowier, alias Thompson, per annum ..	xij ^s iiij ^d
Rent of two tenements, or bur- gages, with gardens, in Taunton aforesaid, leased to George Hamley, per annum	xxiijs ^s

From which must be deducted :—

Rent resolute to our Lord the King, for fee farm rent of the bor- ough of Ilchester, per annum ..	xxv ^s vj ^d extinguished.
Rent resolute to our Lord the King, for suit of his borough of Il- chester aforesaid, yearly	xij ^d extinguished.
Rent resolute to our Lord the King, yearly, for Chilterne lease ..	vij ^d extinguished.
Fee of Walter Bragge, Steward and Receiver there, by letters patent granted to him for term of his life, per annum	xx ^s The King will discharge.

Clear value, per annum, xix^{li} xiijs viij^d

“Memorand’ that the manor of Ilchester aforesaid
is the lorde marques Dorsetes.”

Examined by William Bourne, deputy of Wil-
liam Morice, esq. Supervisor of Particulars of
our Lord the King in the County aforesaid.

Then come the instructions for leasing the property, in English, as follows :—

“xxv^{to} die Junij My lorde p'tecto's graces pleasure is
 anno Sc'do R' that S^r John ffounteney Knighte shall
 E. vjth pro Joh'e haue in ferme the p'misses And therfor
 ffounteney mil' comaundethe that a lease be made
 de London. to hym of the same for xxj yeares
 vnder the seale of the Courte of Aug-
 mentac'ons yeldinge to the Kinges
 ma^{tie} the saide yerelie rente accordinge
 to suche order as other leases vse to
 passe in the same Courte, Wth this
 p'uiso to be conteyned in the saide
 lease that if at any tyme after then-
 sealinge of this Lease the saide S^r
 John ffounteyne his executors or as-
 signes or any other for hym or them or
 in his or there right shall or doo expell
 or put out of any of the p'misses any
 of the ten^{ntes} or fermo's havinge of
 late by Indenture or by Copie of
 Courte roll vntill suche tyme as their
 estates therin shalbe tried or Adiudged
 to be voyde in any of the Kinges
 highnes courtes of Recordes havinge
 Auctoritie to holde plee of the same
 or doe Decaye or suffer to be decayed
 any habitacon or dwellinge house or
 ferme in or vpon any of the p'misses
 That then and from thensforthe the
 the saide Leasse to be voyde.”*

* MS. Harl. 701, ff. 18, 19. Appendix, No. XIV.

It does not appear that this arrangement was ever carried into effect, as both the name of the lessee and all reference to the transaction are omitted from the preamble of the grant which will presently be before us, and which recites the various leases granted by the Crown previous to the final disposal of the property.

To a reader who has perused with attention the foregoing enumeration of the lands belonging to the Chapel, I have hardly need to suggest the recurrence of names previously noticed in the earlier documents. Thus the Hichins, Batteacre, and Mowrewaie of this are the Heychyng, Battedeacre, and Morstrete of the ancient charters. Some of them yet retain their olden appellations, with those slight modifications which the lapse of centuries must necessarily produce. Fotesmede, for instance, Mr. Buckler informs me, is still known as Footsmead and Footmead.

I presume that from the revenues thus unscrupulously appropriated the Crown granted to the Incumbent a yearly pension of *vj^{li} xij^s iiij^d*. I do not find a record of the fact, but the name of "George Carewe, clerk, last incumbent of the Free Chapel of Holy Trinity in Ilchester," appears in Cardinal Pole's Pension Book as a recipient of that sum in 1556*

How he was to be maintained I know not—perhaps he received the overplus of the revenues until the lands passed to other owners,—but on the 10th of May, 1561, Queen Elizabeth presented Baptist Willoughbie, clerk, to the Rectory or Chapel of Whytehall, and directed her letters patent for his induction to Gilbert, Bishop of Bath and Wells. The letters are dated, witness the Queen, at

* Card. Pole's Pension Book, fol. xxxb. Add. MS. 8102, B.M. fol. xxxb. Appendix, No. XV.

Westminster, on the day aforesaid.* This is the last presentation to Whitehall that I have been able to find.

The Queen, who appears to have had no kind of disinclination to profit by the evil deeds of her predecessors, found a willing agent in the work of spoliation in one whom every feeling of ordinary rectitude should have kept true and faithful to his sacred trust. The Bishop to whom the letters patent were addressed, Gilbert Berkeley, who occupied the episcopal throne of Wells from 1559 to 1581, wrote, between two and three years after his receipt of the same, a letter to Secretary Cecil, which I have found among the Lansdowne MSS. and here give entire. It is a remarkable one in many respects, exhibiting the writer, in strict agreement with the character attributed to him elsewhere, as more careful of his bodily health than of his duty as a sworn defender of the Church, and giving a fearful picture of the results of that sacrilegious movement, which, originated by the royal and noble personages of the day, extended its withering influence to some of the inferior classes of society, and deadened them to a sense of enormities which in other and better times they would have been the first to denounce. Perhaps, however, the most significant and valuable fact which it reveals is that an aider and abettor of the wrong thought it necessary that some order should be taken to keep the commonalty quiet, who naturally and most properly felt that their own welfare was inseparably bound up with that of their Church, and prudently recommended that the spoilers should proceed with due caution, "that the common people may cease from grudging."

"It maie please yo^r. honor to be advertysed, that longe erthys accordynge to my bounden dewtie, I had made Certi-

* Pat. 3 Eliz. p. 8. m. 21, *olim* 25.

ficat to the Quenes ma^{ties} most honorable Councell for and concernynge the Chappelles and the nombre of howfolde belonginge to the same : had it not byn, that no man (and not without good consideracon) shuld come into the Courte : vnlest it were well knowen from whens he came. for aight weakes agoo, I and my whole howfolde have removed from the Towne of Welles, and (thanks be to God) have continued all hitherto in good healthe. the cause was, that then God had visited one howse in Welles : and therefore I was contrayned to remove, and have ever sythens remaind in a Towne called Monton. Where God be prayesd, nor nere thereabouts, there ys anye fycknes : and nowe by this bearer the Archedecon of Tanton chaplen to my Lord the Erle of Pembroke, I have sent the Certificat of the nombre of the Chappelles wthin the dyoces of Bathe and Welles : and of the howses belonginge to the said Chappelles. And furthermore these are to doo yo^r Honor to vnderstande, that syns the inquisition made, for the said Chappelles (notwthstanding it was so secretelie don, as possible might) yet certayn Patrons, ffermors of impropriations, and such, as have yeares in benefices have not only geuen out evill brutes for the pullinge downe of all Chappelles, but also some of them have putt in vse, to take downe the leadde of Chappelles and to cover them agayne with tyeles I thought it was my dewtie, thus much to signifie vnto yo^r. Honor, hopinge by yo^r. meanes, some order maie be taken, that the comon people maie cease from grudgynge. I leave any longer to trouble yo^r. Honor at this present : and shall not faile wth my contynuall praiers to prairie to God for yo^r. Honors healthe and prosperous estate duringe lyfe. At Moncton, this 17. of Novembre. 1563.

Yo^r. Honors dailie Orator.

Gilb' Bathe & Welles

Endorsed—

To the right honorable S^r Willm Cicill Knight
Secretarie to the Quenes Highnes, and one of her
Ma^{ties}. most honorable Privie Councill yeve these.”*

Little now remains to be offered, as when the property was alienated from its rightful uses, either absorbed in royal revenues or turned into a part of a wealthy subject's estate, my province and labour alike are ended.

On the 15th of January, 1573-4, Queen Elizabeth demised to Ralph Hope, and his executors and assigns, all that Free Chapel called Whitehall, with all its rights, members and appurtenances. Also all and singular houses, buildings, messuages, cottages, mills, woods, waters, water-courses, &c., &c., in Ilchester, Northover, Lymyngton, and Taunton, in any way belonging or pertaining to the said Free Chapel, all of which were then or lately in the tenure or occupation of Thomas Dewport, or his assigns, and had come into possession of the Crown by virtue of an Act of Parliament lately passed for the dissolution of Chantries and other similar institutions in the County of Somerset. All large trees which were or were reputed for timber, and all fair saplings which might grow into such trees, were reserved to the Crown. The lands, &c., were to be held by the said Ralph Hope and his executors and assigns, from the time at which a certain indenture and lease of George Carowe, clerk, Archdeacon, and then Master of the said Chapel, to Thomas Dewport, dated the 28th of June; 37 Henry VIII., 1545, for forty years from the Lady-day last past, should determine, for a term of twenty-one years thencefrom, at an annual rent of sixteen pounds and ten shillings of lawful English money.

* MS. Lansd. 6. n. 80. ff. 188, 189.

The letters patent are dated at Westminster, on the day aforesaid.

Little more than two years afterwards the Queen demised to Sir Christopher Hatton, Knt., then Christopher Hatton, Esq., and his heirs, five acres of pasture, with appurtenances, at Yerdend, then or lately in the tenure or occupation of Richard Sansan or his assigns, and one house called a stable in Ilchester aforesaid, lately in the tenure of Richard Cuffe or his assigns, and one house called Whitehall, with its appurtenances, and five acres of land, with appurtenances, in Ilchester aforesaid, near Tuckers lez, in the tenure or occupation of John Phillips or his assigns, at an annual rent of ten shillings and two pence, with similiar reservations to those aforesaid. The lease was dated at Gorhambury, the 3rd of April, 1576.

Further, the Queen demised to Gawin Phelips and Giles Ffathers all that Free Chapel of Holy Trinity of Whitehall, with all and singular its rights, &c., &c., and with the same reservations, from the Lady-day of 1606, for a term of twenty-one years next following that date, at a yearly rent of fifteen pounds, nineteen shillings, and ten pence. The letters patent are dated the 4th of July, 1587.

Lastly came the sale and final alienation of the property. The Queen granted to Michael Stanhope, Esq., one of the Grooms of the Privy Chamber, and Edward Stanhope, LL.D., one of the Masters in Chancery, and their heirs and assigns, in consideration of the sum of four thousand, eight hundred, and seventy-three pounds, one shilling, and eight pence, of lawful money of England,—together with large estates elsewhere, belonging to various Religious Houses; Upton, in the parish of Blewbery, in Berkshire; the Rectory and Church of Wigenhall, in Norfolk; a moiety

of the tithes, &c., in Carleton Colvile, in Suffolk ; tenements in Honey Lane, in the City of London ; Harden, &c., in the County of Chester ; Pendevy, in the County of Cornwall ; Hucknall Torkerd, &c., in the County of Nottingham ; and a tenement in Whiting streete, in Bury, in the County of Suffolk—all that Free Chapel, commonly called Whitehall, otherwise the Free Chapel of the Holy Trinity of Whitehall aforesaid, with all and singular its rights, members, and appurtenances, lying and being in the vill, parish, or hamlet, of Ilchester, Northover, Taunton, and Lymington, or in any one of them, or elsewhere in the County of Somerset, pertaining to the said Free Chapel, estimated at the clear annual value of fifteen pounds, nineteen shillings, and ten pence, parcel of the possessions in the Queen's hands by virtue of an Act of Parliament, &c., &c. By this instrument, which recites in its preamble the leases already given, the grantees were to hold the property for their sole and exclusive use and benefit, with reservation of all Crown rights,—(not a syllable, however, is added about the providing of a Chaplain for the people thus summarily defrauded of the bequest of their forefathers)—of the Queen and her heirs and successors, as of the manor of Eastgrenewich, by fealty only, in free and common socage, and not in chief nor by knight service, for all other rents, services, exactions, and demands whatsoever, from the Michaelmas last past. Then follow exonérations of all corrodies, rents, fees, annuities, pensions, portions, &c., hitherto due from the several estates. And the grant concludes with the usual remission of account, fine, &c., and bears date, witness the Queen, at Westminster, the 27th of June, 1600.*

* Pat. 42 Eliz. p. 19, mm. 1—11.

Thus ends the history of White Hall in Ilchester. Consecutively a Hospital, a Priory, and a Free Chapel, it was apparently destined to a long and useful existence in the latter character, had not influences been brought to bear against it which hundreds of institutions of tenfold greater power had been unable successfully to resist. With those influences nothing was sacred, or worthy of so much as a thought when opposed to schemes of private aggrandisement, and the thirst of adding more to much. It did not even, apparently, suggest itself to the spoilers, so blind and infatuated had they become, that their new possessions were solemnly barred against their entrance by the most fearful of anathemas, and that disaster would as surely follow the appropriation as night succeeds the day. "De ecclesia," however, as S. Jerome had of old put it, "qui aliquid furatur, Judæ proditori comparatur." The sin soon attracted its curse. The experience of a few short years opened the unwilling eyes of many to the terrible truth that sacrilege transmits its peculiar legacy and entails its peculiar woe, and that a man may court perdition both of body and soul to establish a family, deep in whose heart the very possessions so acquired will be as a plague spot, engendering a certain and in numberless instances a speedy dissolution. "Church land," as Abp. Whitgift told Queen Elizabeth, "added to an ancient inheritance, hath proved like a moth fretting a garment, and secretly consumed both; or like the eagle that stole the coal from the altar and thereby set her nest on fire, which consumed both her young eagles and herself that stole it." It is, perhaps, the most fearful lesson which the history of the last three centuries in England can inculcate, a lesson which, indeed, may with certainty be learned not only from the denunciations of

Inspiration expressly threatening the result, but—what to some would be equally if not more conclusive—from the visitations of heralds, and the contents of muniment chests, which give their testimony without favour or affection. Neither let us imagine that the curse has lost aught of its ancient power. The “Fiat. Fiat. Amen.,” which holy hearts inspired and holy lips pronounced, does not lose its virtue with the lapse of centuries or the change of this world’s dynasties. Time is nothing. Delay gives but a fictitious confidence. The wrong continues, and the continuance of wrong does but add sin to sin. And that man must be blind indeed to what is passing around him, who cannot see evidences unmistakeable of old transgression still finding out victims in the representatives of the perpetrators, overtaking them along paths which other men tread in safety, thwarting them in ways wherein others have their will, clean putting out some, harassing and torturing others, and never sleeping or satisfied until the last of the doomed race becomes the tenant of his oftentimes early grave. Nor let any one think that these remarks are misplaced. It is the glory of the study of days of old to discern therein the finger of God, and to endeavour to interpret by such a reference the changes and chances of after times. Happy the scholar, who so learns the things which have been as to improve and elevate those which are, and, by inducing restitution and satisfaction for injury, kills that evil at the root which would sooner or later bear fruit of death. The wrong is ever crying for vengeance—surely the word of warning is never out of place. The examples are on all sides, and merciful is the hand that points to their teaching. “The destruction of Korah,” says Clement Spelman, “persuades more with the Israelites than the soft voice of Moses; and

such oratory may take thee ;—Hell hath frighted some to Heaven. View, then, the insuccess of sacrilegious persons in all ages,—that will prevail with thee. For had Korah and his accomplices been visited after the visitation of other men, thou and I, nay, perhaps the whole congregation of Israel, would have believed what they said as truth,—it sounded so like reason ; and approved what they did as pious—it looked so like religion. But their end otherwise informed them, and better instructed us.”

THOMAS HUGO.

A P P E N D I X .

No. I.

[Reg. Drok. fol. lvüij.]

Carte Albe Aule Ieuelcestr'

Carta. W. Dacus Dat' p' cop'. Om'ibz xp'i fidelibz
de donac'one dom' ad quos p'sens sc'ptum p'uen'it.
Albe Aule Ieuelcestr' W. Dacus et'nam in vero saluatore
salt'm Nou'it vniu'sitas v'ra me diuine pietatis intuitu
dedisse & lib'alit' concessisse & hac carta mea confirmasse
d'no deo in puram & p'petuam elemosinam domu' de
Iuelcestr' que vocat' Alba Aula cu' toto mesuag' ad eand'm
domu' p'tine'te, & duas domos eid'm domui vicinas quas
Rog's de Donehefd tenuit & amb' molendina que possi-
debam in villa de Iuelcestr' cum tota t'ra arabili que ad
p'd'ca molendina p'tinet & cum vno sextario p'ti ad d'ca
molendina p'tine'te Ita t'n qd molicio mea & familie mee
in eisd'm molendinis quita sit ab om'i . . . dedi eciam
deo domu' que fuit Aylwardi lagga cu' toto mesuagio ad
eand'm domu' p'tine'te & dece' acras t're . . . mesuagiu'
iacentes & decem & octo acras t're que vocant' Heychyng
& q'nqz acras t're q' vocant' crofta Panchot que iacent in
p'te boriali de Pulbring' & duos solidos de s'uicio tene-
me'ti Henr' Caretarij, scil't de vna v'gata t're ap'd Sowej
duodecim denar', & de vno mesuag' in villa de Iuelcestr'
duodecim denar', & septe' acras t're que fueru't de Hay-
warderia scil't vnam acram q' vocat' battedeacre, & vna
ac'm que iacet iux^a domu' lep'sor' & duas acras & dimid'
in p'te occident' a domo lepros', & duas ac's & dimidiam
que iacent iux^a t'ram W. Ruffegray v'sus Pulbringg' ad
statuend' Hospit' in honorem dei & b'e t'nitatis, ad sus-
cipiendu' paup'es debiles peregree proficiscentes p' salute
ai'e Ric'i Wynton' Ep'i nati apud Sok, & pro salute ai'e
p'ris & m'ris eius & antecessor' eius & o'um s' consang'nitate

p'tine'cium, & p' salute ai'e Herb'ti Sar' Ep'i & p'ris & m'ris eius & an'cessor' eius & o'um s' consang'nitate p'tinenciu' & p' salute ai'e Ric'i Sar' Ep'i & p'ris & m'ris eius & an'cessor' eius & o'um s' consang'nitate p'tinenc' & p' salute ai'e Jocelini Bath' Ep'i & p'ris & m'ris eius & an'cessor' eius & o'um s' consang'nitate p'tinenciu' & p' salute Ade de Iuelcestr' decani Sar' & p'ris & m'ris eius & antecessor' eius & o'um s' consang'nitate p'tinenciu', & pro salute ai'e mee & p'ris & m'ris mee & antecessor' meor' & o'um michi consang'nitate p'tinenciu', & p' salute ai'e Emme vx'is mee & p'ris & m'ris eius & an'cessor' eius & o'um s' consang'nitate p'tinenciu', & p' salute o'um eor' q' elemosinas suas ad p'd'ci Hospital' emendaco'm & sustentaco'em mis'icordit' contulerint. Hoc ecia' adicio qd Ego & he'des mei custodes iam d'ci Hospit' d'no Bathon' Ep'o In cui' p'tecc'one Hospitale est p'sentabim', Et si ita contig'it qd custos eiusd'm Hospit' eid'm Hospit' no' fu'it necessarius, Ego & he'des mei tantu', & nullus alius ip'm remouebim', & aliu' quem viderim' expedire p' prudentu' viror' co'siliu' ibid'm s'bstituem'. Ego v° & he'des mei in no'ie d'ni om's t'ras p'noi'atas deo & hospit' p'd'co con' om's ho'ies warantizabimus. Et vt h' mea donacio rata p'maneat & inpost'um stabilis p'seu'et, p'sentem cartam sigilli mei apposic'one roborau', Hiis testibus d'no Steph'o Cant'. Archiep'o, Hugone Lync' Ep'o Jocelino Bathon' Ep'o Ric'o Sar' Ep'o Ada de Iuelcestr' Sar' decano Galfrido Archid'o de Berkshire Joh'ne Capell'o d'ni Ric'i Sar' Ep'i Mag'ro Luca Sar' cano'ico Hugone Malet Gilb'to Daco, Ric'o Daco, Ric'o Pauncefot, & Ric'o filio eius, Ric'o de Clyuedon', Barth'o de Kemessing' & multis alijs.

No. II.

[Reg. Drok. fol. lviiij.]

L're Abb'is de Cernel sup' ratificaco'e d'ce approp'aco'is. Dat' p' cop' Om'ibz xp'i fidelib' ad q's p'sens sc'ptu' p'uen'it. W. d'ina p'miss'one. Abb' Cernel & eiusd'm loci Co'uentus sal'm in d'no L'ras n'ras patent' direxim' ven'ab' p'ri. J. dei gr'a Bathon' Ep'o in h' v'ba Reu'endo d'no & p'ri in Xp'o K'mo. J. dei gr'a Bathon' Ep'o. W. di'na p'missione Abb' Cernel & eiusd'm loci co'uent' sal'm & deuotam in d'no reu'enciam. Nou'itis nos ratam & gratam

h'ituros inp'petuu' ordinaco'em qua' fec'itis sup' aduocaco'e' eccl'ie b'e mar' minoris de Iuelcestr' & b'nficio annuo quod de ead'm ecc'ia p'cip'e solebam' In cui' Rei testimon' p'senti sc'pto sigilla n'ra apponi fecim' valeat pat'nitas v'ra semp' in d'no. Idem v'o dn's Ep'us receptis p'd'cis l'ris n'ris de consilio viror' p'denciu' & iuris p'itor' eid'm assidenciu' ordinauit in hu'c modu', vid't qd pensione' illam annuam qua' de ead' eccl'ia p'cip'e co'sueuim' scil't duos solid' p'cipiam' tota vita Thome nu'c p'sone illius eccl'ie, & qd aduocac'o illius eccl'ie eid'm Ep'o & successoribz suis inp'petuu' remaneat, Ordinauit & q' post decessu' u'l cesso'em d'ci Thome p'cipiam' vna' m'rcam a'nuati' inf' octab' Assu'pco'is b'e Mar' in domo Cernel de p'uentibz d'ce eccl'ie no'ie p'petui b'nficij p' manu' R'cor' illi' eccl'ie qui p' te'p'e fu'it, m'rcam aut' illam p'cipiem' absqz om'i on'e ordinario. Ad hanc aut' ordinaco'em faciendam induxit p'd'em dn'm Ep'm ut dicebat sollicitudo & cura hospit' S'ci Joh'is Bapt'e de Iuelcestr' q'm gessit qd situ' est in p'ochia p'd'ce eccl'ie vt facilius & co'petenci' possit p'uidere q'modo i' capella p'd'ci hospit' possint inpost'um di'na celebrari. Nos itaqz p'd'cam ordinaco'em d'ci d'ni Ep'i p' nob' & successorib' n'ris p' o'ia ratam h'em' & g'tam In cui' rei Robur & testimon' p'senti' sc'pto sigilla n'ra apposum'.

No. III.

[Reg. Drok. ff. lvij, lvijb.]

L'ra d'ni Jocelini Ep'i sup' ordinac'one sua d'ce ap'p'aco'is Dat' p' cop' Om'ibz ad quos p'sens sc'ptu' p'uen'it Jocelin' dei gr'a Bathon' Ep'us sal'm. L'ras patentes Abb'is & co'uent' de Cernell suscepim' in hec v'ba Reu'endo d'no & pat' in xp'o k'mo. J. dei gr'a Bath' Ep'o. W. di'na p'miss'one Abb' Cernell & eiusd'm loci co'uent' sal'm & deuotam i' d'no reu'enciam Nou'itis nos ratam & g'tam h'ituros inp'petuu' ordinaco'em quam fec'itis sup' aduocaco'e' eccl'ie b'e Mar' minoris Iuelcestr' & b'nficio a'nuo quod de ead'm eccl'ia p'cip'e solebam'. In cui' rei testimon' p'senti

sc'pto sigilla n'ra apponi fecim' valeat pat'nitas v'ra semp' in d'no. Nos v^o receptis d'cis l'ris cum q'dam loc' ad hospitalitatis vsum & paup'um suscepco'em inf^a p'ochiam d'ce eccl'ie in honore s'ce T'nitatis de consensu d'ni fundi sit auc'te pontificali deputat' cu' cura & sollicitudo ex offic'o pastorali nob' incumbit considerantes paup'tate' & tenuitatem d'ci hospit' & def'cu' quem sustine't f'res & sorores eiusd'm, qui rel'co sec'lo ad s'uiendu' deo & paup'ibus sub paup'tatis h'itu ibid'm conu'sionis & religionis h'itum assumpseru't Et qd p' di'nis celeb'ndis & audiend' int' seculares p' vicos in scandalu' Religionis necesse h'eabant ad ip'am eccl'iam conc'rere p'ochialem cu' in d'co hospit' no', nisi salua iusticia d'ce mat'cis eccl'ie pot'ant diuina celeb'ri de consilio viror' prudentu' & iuris p'itor' de d'ca aduocac'one & eco'ia tal'r ordinam' vid't q' hospitale p'd'em & fratres eiusd'm h'eant aduocaco'em p'd'ce eccl'ie in p'p'm Indulgem' eciam eisd'm qd Thoma n'c Rctore eiusd'm cedente v'l decedente lib'e valeant ex hac n'ra indulgencia d'cam eccl'iam in p'pos vsus conu'tere & retin'e & ip'ius ingredi posso'em n'ro v'l successor' n'ror' assensu mi'me requisito Ita qd in ead'm p' ydoneu' capell'm faciant competent' p'petuo deserviri Et qd extu'c solua't annuatim in Octab' Assu'pcionis b'e Mar' virg' apud Cernell Abb'i & monachis eiusd'm loci vnam m'rcam annuam de fructibz eiusd'm eccl'ie no'ie p'petui b'nficij absqz om'i on'e ordinario p'd'co v^o Thoma nu'c R'tore eiusd'm d'cam eccl'iam possidente p'cipiant d'ci Abb' & Co'uent' de Cernell annuam penso'em duor' solidor' qua' inde p'us p'cip'e consueueru't ita qd d'ci f'res h'eant in d'co Hospit' Capellam sua' in qua faciant celeb'ri di'na cu' pulsac'one campanar' & aliis sole'pnitatibz consuetis & necessariis in diuinor' celebrac'oe Et qd h'eant cimit'ium b'ndictu' inf^a septa sui Hospit' ad sepelliendu' f'res suos & sorores & alios qui ibid'm dux'int sepulturam eligenda'. Salua semp' iusticia eccl'iar' p'ochialiu' illor' qui ibid'm eleg'int sepeliri. Hec aut' ordinam' salua nob' & successorib' n'ris eccl'iar' n'rar' & n'ra p' o'ia iur'dicc'one potestate & dignitate. Et saluo Archid'is loci

iure Archidiaconali In Cui' les'ois recompensaco'em volum'
& statuim' eisd'm Arch'is synodalia consueta annuatim
duplicari In cu' Rei testimon' p'senti sc'pto sigillu' n'rm
apponi fecim' Dat' apud Woky die Conu'so'is S'ci Pauli
Anno gr'e Milli'o ducentesimo Quadragesimo p'mo.

No. III.*

[Ped. Fin. 2—20 Henry III, n. 57.]

Hec est final' concord' f'ca in Cur' d'ni Reg' ap'd
West'm a die Pasch' in tres septim'. Anno Regni Reg'
Henr' fil' Reg' Joh'is septimo. Cora' H. de Burgo tu'c
capitali Justic'. Martino de Pateshill'. Rad'o Harang.
Steph'o de Seg'ue. Thom' de Haiden. Rob'to de Lexinton'.
Gaufr'o Le Sauuag' Justic'. Et aliis d'ni Reg' fidelibz tu'c
ibi p'sentibz. Int' Emma' que fuit ux' Will'mi Daci
petente'. & fr'em Walt'm de Clapton' custode' Hospital'
s'ce Trinitatis de Iuecestr' tenente' de t'cia parte dece'
acrar' t're. & q'ndeci' acrar' prati & duor' molendinor' cu'
p'tin' in Iuecestr'. Q'm t'cia' p'te' ip'a Emma clamabat
e'e r'onabile' dote' sua' de lib'o tenem'to quod fuit p'd'ci
Will'i q'nda' uiri sui in eade' uilla. Et vn' placitu' fuit int'
eos in p'fata Cur'. Sol't q'd p'd'cs Frater Walt' recognouit
tota' t'cia' p'te' p'd'ce t're & p'ti & molendinor' cu' p'tin'.
e'e dotem ip'ius Emme. Et p' hac Recognico'e. fine &
concord'. eade' Emma co'cessit ip'i fr'i Walt'o *ande' t'cia'
p'te' p'd'ce t're & p'ti & p'd'cor' molendinor' cu' p'tin'.
Habenda' & tenenda' eide' fr'i Walt'o & successoribz suis
& p'd'co domui Hospital' de p'd'ca Emma q'diu uix'it.
Reddendo inde annuati' una' marc' arg'nti ad duos t'minos
anni. Sol't medietate' ad Pasch'. & aliam medietate' ad
festu' s'ci Mich'is p' om'i s'uic'o. Et si forte co'tig'it q'd
Ide' frat' Walt' u'l success' sui no' reddid'int p'd'cam marc'
ad p'd'cos t'minos sicut p'd'cm est. Licebit ip'i Emme
distring'e eos p' catall' in p'd'cis t'ra & p'to. & p'd'cis
molendinis inuenta. usqz ad plena' solucione' ei'de' marce.
Sum'set.

No. IV.

[Esc. 9 Edw. I. n. 79.]

Inquisic'o f'ca p' sac'mentu' Ade de Kary Will'i Tessun Will'i Cot Thom' de Parays Joh'is de Loueny Gilb'ti de Taunton Pet' Le Rus Nich'i de Tyntenhull Will'i Sclaume Will'i ffoffard Galfr' de Tyntenhulle & Regin' de Kary qui dicunt sup' sac'mentu' suu' q'd vnu' mesuagiu' in villa de Iuelcestr' tenetur de Com' Cornubie p' s'uiciu' vnus quadrantis p' annu' p' om'i s'uicio. Et idem Comes est capitalis d'ns illius mesuag' & aliud mesuagiu' tenetur de eodem Com' p' s'uiciu' vnus oboli p' annu' p' om'i s'uicio. Reddendo inde Rog'o de Moles duodeci' denar' p' annu' tantu' sine alio s'uicio inde recipiendo. Et dicu't q'd no' est ad dampnu' d'ci Com' si Cecilia Bagge & Rob'us filius eius concedere't u'l feofarent Priorissam & moniales de la Blaunchesale de Iuelcestr' eo q'd consuetudines & s'uicia debita de p'd'cis mesuag' d'cus Comes debet recipere annuati' p' manus tenenciu' d'cor' mesuagior'. It'm dicu't q'd q'tuor acre terre tenentur de Johanne Shurek de Cilt'ne p' s'uiciu' vnus denar' p' annu' p' om'ibus s'uic' de feudo Joh'is de monte acuto q' tenetur de d'no Rege in capite p' baronia'. Et vna ac' terre & dimidia tenentur de Hugo'e Hereward p' s'uiciu' vnus denar' p' annu'. Et vna ac' & dimidia tenentur de Adam Haghene p' s'uiciu' vnus Rose p' annu'. Et vna ac' terre tenetur de Thom' Bagge p' s'uiciu' vnus oboli p' annu' & sunt de feudo Com' Marescall' p' iiij^d de Sturgoyl. Et due acre p'ti & dimidia tenentur de h'edibz Will'i Le Deneys qui tene't in capite de d'no Rege p' s'uiciu' duodecim denar' p' annu'. Et dicu't q'd no' est ad dampnu' d'ni Regis si p'd'ca Priorissa & moniales essent feofati de p'd'cis tenem'tis. Et dicu't q'd no' est ad dampnu' d'nor' feudi p' annu' si inde feofati e'ent eo q'd nichil in p'd'cis tenem'tis eis accider' possit nisi tantu' p' Escaetam si euen'it u'l releuiu' & si escaeta euenerit tu'c e'et ad dampnu' d'nor' feudi de qualibet ac' t're p' annu' vj. den'. Et de duabz acr' p'ti & dimid' vj. d. tantu' p' annu'.

No. V.

[A Deed in the possession of the Author.]

Sciant p'sentes. & futri quod Ego. Henric' de Rocheford filius Eudon' de Estwode. dedi. concessi. & hac p'senti carta mea p' me. & heredibus meis siue assing^{at}is meis confirmaui. Henrico de Broke. Nich'e vxor' sue. & eor' heredibz. tres acras. t're arabil' que vocant' Littlemede. & Iacent int' t'ra' Henr'. de Broke que vocat' Brudenewere exp'te aust^{li}. & viam que vocat' la Morstrete exp'te Borial'. Et septe' ac's p'ti que Iacent int' cult'am que d'r le Castel exp'te borial' d'ci p'ti. & p'tu' Priorasse albe aule de Yuelcestr' exp'te austral'. quas quide' acras t're arabil' & p'tu' p'no'iatu'. Will's Ruffeg^e aliq^{ndo} de me tenuit ad firmam. Habend'. & tenend' d'cas t's acras t're arabil'. & septe' acras p'ti p'notatas. de me & heredibz. siue assing^{at} meis. D'co Henr' * * * om'imoda excepc^{oe} postpo'ita. lib'e. quiete. integre. bene. & in pace Jure hereditario inp'petuu'. Reddend' inde annuatim. seped'ci. Henr'. Nich' & eor' hered' Communi ville de Yuelcestr'. sexdecim. denarios. a la Hockeday p' om'ibz s'uiciis. sect'. querelis. & secularibz demandis. & p' om'ibz aliis euentibz que sup' d'cam t'ram aliquo temp'e co'ting'e pot'unt. Hec autem om'ia p'missa. cu' om'ibz iuris & lib'tatibz p'tactis Ego p'no'iat' Henr' de Rogesford. & hered. siue assing^{at}i mei. D'co Henr'. de Broke. Nich'e vx' sue & eor'd'm heredibz cont^a om'es mortales p' p'd'cm Redditu' Ware'tizabimus. acquietabim'. & defendem' inp'petuu'. P' hac aute' donac^{oe}. concessione. p'sentis carte confirmac^{oe} & Warentizac^{oe}. dederu't p'd'ci Henr'. de Broke. et Nich' vx' ei'd'm. anted'co Henr'. de Rocheford. viginti. q^{tuor}. m^{cas}. & dimidiam. argent' p' manibz. Vt g' hec mea donac^o. concessio. carte mee confirmac^o. & Ware'tizac^o rata. & inconcussa temp'e p'petuo p'seueret. p'sente' cartam sigilli mei inp'ssio'e roborau. Hiis testibus. D'nis. Will'o. de Giuelton'. Andr'. de Putford. militibz. Thom'. de Hengleby. Joh'e. Herod. Joh'e. Pol. Henr'. de Spekinton'. Joh'e. de aula de monte acuto. Joh'e. de Broke. Rob'to. de Brade-ford. Et Aliis.

Endorsed: C. Henr' Rocheforde f'ca Henr' de Brok de iij. acr' t're. vocat' Lytelmede.

No. VI.

[Reg. Drok. fol. lxxxxviiijb].

L'ra dircta d'no Archiep'o Cant' p' sororibz Albe Aule Yuelcestr'

Reu'endo in xp'o Pat' d'no W. dei g'ra Cant' Archiep'o toti' Angl' p'mati. Joh'nes p'm' eiusd' Bath' &c. salt'm &c. Quia sorores Albe Aule Yuelcestr' n're dioc', in obp'briu' reg'le sue & Religionis, p' Alic' atte Zerde que se dicit inibi Priorissam a domo sua p'd'ca expulse, cogunt' indies mendicare, ob quam c'am ad nos accedentes, s' s'r p'missis, remediū' postulant importune lac'mosis suspiriis adhiberi. Nos v° lite s'r hoc in v'ra Cur' pendente manus ligatas obtinentes, affectantes qz q'd d'cis mis'abilibz p' vos in hac parte g'aciose valeat s'bveniri, reu'end' pat'nitatem v'ram sed'lo dep'cam' q'tin' sororibz p'fatis victu' nc'cm & pacificu' de suo p'p'io in domo p'notata lite in Cur' v'ra ut p'mittit' pendente, benigne dignem'i si placeat p'uidere. Eccl'ie sue s'ce regimini &c. Sc'pt' apud Kyngesbur'. Non' Septembr'. a°. m°. ccc^{mo}. xvj°.

No. VII.

[Reg. Drok. fol. ccxv.]

Co'missio p' custod' dom' Albe Aule Ieuelc. J. p'mission' &c. Dil'cis in xp'o filiis. D'no Henr' de Bir-launde Rectori eccl'ie de Stok n're dioc' p'sbit'o. & Joh'i de Herminull sal'm gr'am & ben'. Quia ex lac'mosa querela paup'u' religiosar' soror' dom' Albe Aule Yeuelcestr' n're dioc' ac fama puplic' referente, ad aures n'ras p'uenit. q'd soror' Alic' de Chitt'ne (*sic*) que se dicit P'orissam d'ce dom' de Joh'ne de Passelewe Capell'o, sup' inco'tinencie vicio extitit puplice diffamata. bona qz & res sac's p'd'ce Albe Aule p'p'ia tem'itate distraxit nequit' & co'sumpsit ac co'sumit in dies intantu' q'd d'ce sorores sue ip'i' dom' & in ea x° famulantes p' defectu sustentac'onis compellunt' q'd dolent' referim' miserabil'r mendicare. Sup' q'bz ex off'io n'ro inq'ri fecim' diligent' p' qua' inq'sic'om comp'tu' extitit q'd d'ca soror Alicia no'iata P'orissa vt p'tangit' diffamata de s'uicio diuino cui ex religione sua e' dedita no' cura's sorores suas deo dicatas contempnit. eis qz sustentaco'm om'iodem subtr'xit & subtr'hit cui occ'one alicue

sorores ipi' dom' fame vt dicit' p'ieru't p'fata qz bona & res in vsus illicitos conu'tit & ea dissipat vt p'd'r tem'e & consumit in g'ue a'e sue p'ic'l'm d'car' soror' suar' & dom' p'iudiciu' ac dampnu' no' modicu' & scandalu' pli'or'. Nos ig' indigencie & paup'tati dictar' soror' pie co'paciennes effectum p'missa & alia p'ic'l'm a'e d'ce P'orisse co'cerne'cia p' statu d'ce dom' & soror' ip'ius releuando eid'm P'orisse opponi fecim' sine mora ip'aqz demu' P'orissa tamq' conscia s' de p'missis se ac statu' suu' & d'ce dom' ordinaco'i n're. ac laudo & decreto in p'sencia notarij publici alte & basse submisit. Cum itaq' mandatis regiis ex^a n'ram diocesim p' variis negoc' nos oporteat London' n'ram p'senciam exhib'e ordinacio'i stat' d'ce P'orisse & soror' ac d'ce dom' vsqz ad redditu' n'rm sic' co'uenit & ad nos p'tinet ex officio intender' nequeam'. de v'ra fidelitate & indust'a confidentes vob' custodiam d'ce Priorisse ac soror' & dom' p'd'ce, rer' qz ad eand'm domu' p'tinenciu' co'mittim' p' p'sentes. sic' nob' de custodia hi' & minist'c'one p' vos ibid'm fac' voluerit' responder'. Iniu'gentes vob' firmit' quatin' d'ce P'orisse & sororib' vict'm nc'cia' iux^a facultates domus & ipi' consuetudine' studeatis fid'l'r ministrar' & disp'sa p' ip'am P'orissam quaten' melius pot'itis co'gregare donec ad n'ram diocesim redierim' & iux^a iuris exigencia' alit' ordinau'im' de p'missis. Contrad'ctores & rebelles p' quas-cu'qz censuras eccl'iasticas co'pescendi. vob' d'no Henrico R'tori sup'd'co tenore p'senciu' co'mittim' potestate'. Dat' apud Dogm'esfeld. xiiij^o Kal'n Octobr' anno. d'ni mill'o. CCC^{mo} vicesimo t'cio. Et cons' n're qui'to decimo.

No. VIII.

[Pat. 17 Edw. II. p. 2. m. 6, dors.]

P' Priorissa de Alba Aula de Yeuelcestr'.

R' dil'cis & fidelib' suis Joh'i de Stonore Rad'o de Bereford & Elie de Godelegh salt'm Ex g'ui querela dil'ce nob' in xp'o Priorisse de Alba Aula de Yeuelcestr' accepim' q'd Nich'us de Boleuille Joh'es de Harminulle Joh'es fil' Petri de Draycote Joh'es le Do Nich'us de Sok Will's Baller & Nich'us le Deyer & Agnes vx' eius, vna cu' quibusdam aliis malef'toribz & pacis n're p'turbacoribz clausum ip'ius Priorisse sub p'teccoe n'ra existentis apud Yeuelcestr' vi & armis intrauerunt & ostia grangiar' suar'

ibidem frugerunt & blada sua in eisdem grangiis tunc inuenta ad valencia' centu' marcar' triturarunt ceperunt & asportauerunt p' q'd t're p'd'ce Priorisse ibidem frisce & non seminate remanserunt, ac herba' in p'to ip'ius Priorisse ibidem nup' crescente' ad valencia' decem librar' cum quibzda' aueriis depasti fuerunt conculcauerunt & consu'pserunt & alia enormia ei intulerunt in n'ri contemptu' & ip'ius Priorisse graue dampnu' & contra p'tecco'em n'ram p'd'cam & contra pacem n'ram Et quia t'nsgressionem illam si talit' p'petrata fu'it relinquere nolum' impunitam assignauim' vos & duos v'r'm Justic' n'ros ad inquirend' p' sacr'm p'bor' & leg' hom' de Com' Som's p' quos &c. de acco'ibz malef'cor' p'd'cor' qui vna cu' p'fat'is Nich'o Joh'e &c. t'nsgresione' illam p'petrarunt & de t'nsgresione illa pleni' veritatem & ad eandem t'nsgressionem audiend' & t'minand' sc'dm lege' &c. Et ideo vob' mandam' q'd ad c'tos dies & loca quos vos vel duo v'r'm ad hoc p'uideritis inquisico'em illa' fac' & t'nsgressionem p'd'cam audiatis & t'minetis in forma p'd'ca ff'e'm &c. Saluis &c. Mandauim' e'm vic' nr'o Com' pd'ci q'd ad c'tos dies & loca quos vos vel duo v'r'm ei scire fac' venire fac' cora' vob' vel duob' v'r'm tot &c. P' quos &c. In cui' &c. T. R. apud Tonebrigge
xxvj die Junij P. ip'm R'

No. IX.

[Llchester Almshouse Deed, No. 26.]

Om'ibz Xpi fidelibz ad quos p'sens sc'ptu' p'ven'it Joh'nes Cole de Bruggewater Salt'm in D'no Nou'itis me tradidisse & concessisse Walt'o Blaunkpayn & Juliane uxori sue sorori mee unu' Burgagiu' cu' parvo curtilagio que scita sunt in regio vico de Yevelcestre ex oppo'ito Eccl'ie B'e Marie int' burgagiu' q'd fuit Joh'is Draycote & burgagiu' Marie Priorisse de la Nywehalle Habend' & tenend' totu' p'd'cm burgagiu' cu' p'tin' p'd'cis Walt'o et Juliane uxori sue ad totam vitam eor' et alt'ius eor' diuci' viventis de me & heredibz meis Reddendo inde annuatim michi & heredibz unam rosam ad Festu' Nativitatis S'ci Joh'is Bapt'e Faciendo eciam p' me & heredibz meis om'ia reddit' & servicia inde debita & de jure D'no Regi seu quibuscumqz consueta p' om'ibz serviciis sectis heriettis & quibuscumqz secular' demandis Et ego p'd'cus Joh'nes

Cole et heredes mei totu' p'd'cm burgagiu' & curtilagiu' cu' p'tin' p'd'cis Walt'o & Juliane uxori sue ad totam vitam eor' & alt'ius eor' diuci' viventis cont^a om'es mortales in p'sert' Warantizabim' acquietabim' & defendem' In cuj' rei testimoniu' huic p'senti sc'pto Indentato sigilla n'ra alt'natum sunt appensa Hiis testibz Rob'to Pryvyere Joh'ne Rypon Walt'o Ffletcher Joh'ne atte Wille Joh'ne Vysshere Will'mo Wynsam & multis alijs Dat' ap'd Yeuelchestre die Veneris p'x^a post Festu' Pentecost', Anno regni Regis Edwardi t'cij post conquestu' Quadragesimo Quarto.

No. X.

[Inq. ad q.d. 3 Hen. V. n. 14.]

Henricus dei gr'a Rex Angl' & ffranc' & D'ns hib'n'. Escaetori suo in Com' Som's' salt'm. Precepim' tibi q'd p' sac'r'm p'bor' & leg' hom' de balliua tua p' quos rei v'itas melius sciri pot'it diligent' inquiras si sit ad dampnu' vel p'iudiciu' n'rm aut alior' si concedamus Joh'i Strech Rob'to Veel Will'o Gosse Will'o Newton Tholomeo Dure & Joh'i Mascall q'd ip'i septem mesuagia vnu' gardinu' & decem acras t're cum p'tin' in Taunton & Shireford Ac p'dco Rob'to & Will'o Shourte q'd ip'i quinqz mesuagia & sex acras t're cum p'tin' in Yeuelchestre dare possint & assignare dil'cis nob' in xp'o priorisse & sororibz domus Albe Aule de Yeuelchestre h'end' & tenend' eisdem priorisse & sororibz & successoribz suis in auxiliu' sustentaco'is cuiusdam Capellani diuina singulis diebz ad su'm' altare in eccl'ia s'ce Trinitatis de Yeuelchestre p' a'iabz Johanne que fuit vx' Joh'is Stourton & Will'i Whittok ac a'iabz parentu' ip'or' Johanne & Will'i Whittok & a'iabz o'im fideliu' defunctor' celebratur' impp'm & ad anniu'saria ip'or' Johanne & Will'i Whittok singulis annis in die Jouis in septimana pasche in eccl'ia p'd'ca cum Placebo & Dirige in vigilia eiusdem diei cum missa de Requiem cum nota in eodem die ad altare p'd'cm tenend' obseruand' & solempnit' celebrand' impp'm necne. Et si sit ad dampnu' vel p'iudiciu' n'rm aut alior' tunc ad quod dampnu' & q'd p'iudiciu' n'rm & ad quod dampnu' & quod p'iudiciu' alior' & quor' & qualit' & quo modo & de quo vel de quibz p'd'ca mesuagia gardinu' & t'ra teneant' & p' quod s'uiciu'

& qualit' & quo modo et quantum p'd'ca mesuagia gardinu' & t'ra valeant p' annu' in om'ibz exitibz iuxta verum valorem eor'dem et qui & quot sunt medij int' nos et p'fatos Joh'em Rob'tum Will'm Will'm Tholomeu' Joh'em & Will'm de mesuagiis gardino & t'ra p'd'cis et que t're & que ten' eisdem Joh'i Rob'to Will'o Will'o Tholomeo Joh'i & Will'o remaneant vlt' donaco'em & assignaco'em p'dcas & vbi & de quo vel de quibz teneant' & p' quod s'uiciu' & qualit' & quo modo et quantum valeant p' annu' in om'ibz exitibz et si t're & ten' eisdem Joh'i Rob'to Will'o Will'o Tholomeo Joh'i & Will'o remanencia vlt' donaco'em & assignaco'em p'd'cas sufficiant ad consuetudines & s'uicia tam de p'd'cis mesuagiis gardino & t'ra sic datis q'm de aliis t'ris & ten' sibi retentis debita faciend' & ad om'ia alia on'a que sustinuerunt & sustinere consueuerunt vt in sectis visibz franci plegij auxiliis tallagiis vigiliis finibz redempco'ibz am'ciamentis contribuco'ibz & aliis quibuscumq' on'ibz em'gentibz sustinend' et q'd ijdem Joh'es Rob'tus Will's Will's Tholomeus Joh'es & Will's in assisis iuratis & aliis recognico'ibz quibuscumqz poni possint p'ut ante donacionem & assignaco'em p'd'cas poni consueuerunt. Ita q'd p'ria p' donaco'em & assignaco'em p'd'cas ip'or' Joh'is Rob'ti Will'i Will'i Tholomei Joh'is & Will'i def'c'm magis solito non on'et' seu g'uet' Et inquisico'em inde distincte & ap'te f'cam nob' in Cancellar' n'ram sub sigillo tuo & sigillis eor' p' quos f'ca fu'it sine dil'one mittas & hoc br'e. T' me ip'o apud West'm primo die Junij Anno. r. n. primo.

Inquis' capta apud Yeuelchestr' in Com' Som's' die ven'is p'x' post festu' quod dicit' ad uinc'la Sc'i Petri anno regni Reg' Henrici qui'ti post conquestu' primo cora' Ric'o Stucle Escaet' d'ni Reg' in Com' p'd'co virtute br'is d'ni Regis eid'm Escaet' inde directi & huic Inquis' consut' p' sacrament' Will'i Ponton Will'i Gorewell Thome Gane Ed'i Dygher Will'i Rodebere Almaric' att' Wethy Joh'is Stert Joh'is Dolle Joh'is Bochell Roberti Petenyn Joh'is Pytte & Will'i Smyffamour qui dicunt sup' sacr'm eor' q'd non est ad dampnu' neq' p'iudiciu' d'ni Reg' nec alior' si dn's Rex concedat Joh'i Strech Roberto Veel Will'mo Gosse Will'mo Neweton Tholomeo Dure & Joh'i Mascall' q'd ip'i septe' mesuag' vnu' gardinu' & dece' acras t're cu' p'tin' in Taunton' & Shireford ac p'd'co Roberto & Will'mo

Shourte q'd ip'i qui'que mesuag' & sex acras t're cu' p'tin' in Yeuelchestr' dare possint & assignare Priorisse & Sororibz dom' albe aule de Yeuelchestr' h'end' & tenend' eisdem Priorisse & sororibz & successoribz suis in auxiliu' Sustentaco'is cuiusd'm capellani diuina singul' diebz ad Su'mu' altare in eccl'ia Sc'e Trinitat' de Yeuelchestr' p' ai'abz Joh'ne que fuit vx' Joh'is Stourton & Will'i Whyttok ac ai'abz parentu' ip'or' Johanne & Will'i Whittok & ai'abz o'im fidelium defunctor' celebraturi imp'petuu' & ad annu'saria ip'or' Johanne & Will'i Whittok sing'lis annis in die Jouis in Septimana Pasche in eccl'ia p'dict' cu' placebo & Dirige in vigilia eiusdem diei cu' missa de requie' cu' nota in eod'm die ad altare p'd'cm ten'd' obseruand' & solemnit' celebrand' imp'petuu' Et dicunt q'd p'dicta septe' mesuag' gardinu' & dece' acre t're cu' p'tin' in Taunton' & Shireford tenent' de Ep'o Winton' vt de manerio suo de Taunton' in socagio p' s'uiciu' reddend' eid'm Ep'o xij^s & x^d ad quatuor anni t'minos p'ncipales equis porc'onibz & faciend' secta' curie eiusdem Ep'i ad duos legales dies videl't hokkediei & Mich'is annuati' apud Taunton' p'd'cam tenend' p' om'ibz alijs s'uicijs et valent p' annu' in om'ibz exitibz iuxta veru' valore' eor'd'm vlt^a repris' quadraginta sex solidos & dece' denarios Et q'd nullus est medius int' dn'm Rege' & p'fatos Joh'nem Robertu' Will'm Will'm Tholomeu' & Joh'nem de p'd'cis mes' gardino & terra in Taunton' & Shireford nisi solomodo p'd'cus Ep'us Et dicunt q'd p'd'ca qui'que mesuag' & sex acre t're cu' p'tin' in Yeuelchestr' tenent' de d'no Rege in socagio & p' s'uiciu' reddend' eid'm d'no Regi ad firma' sua' in villa de Yeuelchestr' p' soluend' annuati' octo denarios in festo sc'i Mich'is Arch'i & faciend' secta' cur' eiusd'm d'ni Regis in villa de Yeuelchestr' p'd'ca annuati' ad duos legales dies p' om'ibz alijs s'uicijs Et valent p' annu' in om'ibz exitibz iuxta veru' valore' eor'd'm p' annu' xxij^s vj^d Et q'd nullus est medius int' dn'm Rege' & p'fatos Robertu' & Will'm Shourte de mesuag' & terra p'dict' in villa de Yeuelchestr' p'd'ca Et dicunt q'd maneriu' de Radewell' cu' p'tin' quod tenet' de Ep'o Bathon' p' s'uiciu' militare & valet p' annu' in om'ibz exitibz xxⁱⁱ p'd'co Joh'i Strech duo mes' Centu' acre t're cu' p'tin' in Shepton' Beauchamp' que tenent' de Roberto Seymour p' s'uiciu' militare que valent p' annu' xv^s. Quatuor mes' cu' p'tin'

in Bryggewater que tenent' de d'no de la Souche in socagio que valent p' annu' xl.^s p'd'co Will'mo Gosse duo mes' cu' p'tin' in Yeuelchestr' que tenent' de d'no Rege in Socagio que valent p' annu' xx^s p'd'co Will'mo Neweton' vnu' mes' viginti acre t're cu' p'tin' in Wollavyngton' que tenent' de Joh'ne Tochet p' s'uiciu' militare que val' p' annu' xx^s p'd'co Tholomeo vnu' mesuag' sexaginta acre t're cu' p'tin' in Stapulton' que tenent' de Will'mo Bonevile p' s'uiciu' reddend' eid'm Will'mo x^s p' annu' p' om'ibz s'uicijs que valent p' annu' xl.^s p'd'co Joh'i Mascall' & vnu' mes' sexaginta acre t're cu' p'tin' in Mertok que tenent' de Duce Clarancie p' s'uiciu' reddend' eid'm Duci v.^s p' annu' que valent p' annu' lx.^s p'fato Will'mo Shourte remanent vlt^a donac'onem & assignaco'em p'd'cas que t're & ten'ta eisd'm Joh'i Roberto Will'mo Will'mo Tholomeo Joh'i & Will'mo remanencia vlt^a donac'onem & assignaco'em p'd'cas sufficiunt ad consuetudines & s'uicia tam de p'd'cis mes' gardino & t'ra sic datis q'm de alijs t'ris & ten'tis sic sibi retentis debita faciend' & ad om'ia alia on'a que sustinuerunt & sustiner' consueuerunt aut debuerunt vt in sectis visibz franci plegij auxilijs tallagijs vigilijs finibz redempco'ibz am'ciament' contribuco'ibz & alijs quibuscumqz oneribz em'gentibz sustinend' et q'd iid'm Joh'es Robertus Will's Tholomeus Joh'es & Will's in assisis iuratis & alijs recognico'ibz quibuscumqz poni possint p'ut ante donac'onem & assignaco'em p'd'cas poni consueuerunt Ita q'd p'ria p' donaco'em & assignaco'em p'd'cas in ip'or' Joh'is Roberti Will'i Will'i Tholomei Joh'is & Will'i def't'm magis solito non on'at' nec on'abit' nec grauat' seu g'uabit' In cui' rei testi'om p'd'ci Jurat' sigilla sua p'sentibz apposuerunt Dat' die anno & loco p'd'cis.

No. XI.

[Pat. 3 Hen. V. p. 2. m. 27.]

D' licencia dandi ad manu' mortuam	R Om'ibz ad quos &c. salt'm. Licet &c. de gr'a tamen n'ra sp'ali & p' viginti libris quas dil'ca nob' in xp'o Priorissa Albe Aule de Yeuelchestre nob' soluit in hanap'io
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n'ro concessim' & licenciam dedim' p' nob' & heredibz n'ris quantum in nob' est Rob'to Veel & Will'o Shomte (*sic*) q'd ip'i quinqz mesuagia & sex acras t're cum p'tin' in Yeuelchestre in Com' Som's' que de nob' tenent' in burgagio, Ac eidem Rob'to & Joh'i Strech Will'o Gosse Will'o Neweton' Tholomeo Dure & Joh'i Mascall q'd ip'i septem mesuagia vnu' gardinu' & decem acras t're cum p'tin' in Taunton' & Shireford in Com' p'd'co que de nob' non tenent' in capite dare possint & assignare eidem Priorisse & sororibz eiusdem domus h'end' & tenend' eisdem Priorisse & sororibz & successoribz suis in auxilium sustentaco'is cuiusdam Capellani diuina singulis diebz ad suum altare in eccl'ia sc'e Trinitatis de Yeuelchestre p' ai'abz Johanne que fuit vx' Joh'is Stourton' & Will'i Whittok & Agnetis vx'is eius ac ai'abz parentum ip'or' Johanne Will'i Whittok & Agnetis & ai'abz o'im fidelium defunctor' celebratur' imp'p'm et ad anniu'saria ip'or' Johanne Will'i Whittok & Agnetis singulis annis in die Jouis in septimana Pasche in eccl'ia p'd'ca cum placebo & dirige in vigilia eiusdem diei cum missa de Requiem cum nota in eodem die ad altare p'd'cm tenend' obseruand' & solempnit' celebrand' imp'p'm Et eisdem Priorisse & sororibz q'd ip'e mesuagia gardinu' & t'ram p'd'ca cum p'tin' a p'fatis Rob'to Will'o Joh'e Will'o Will'o Tholomeo & Joh'e recip'e possint & tenere sibi & successoribz suis p'd'cis in forma p'd'ca sicut p'd'cm est imp'p'm tenore p'senciu' similiter' licencia' dedim' sp'alem. Statuto p'd'co seu eo q'd p'd'ca mesuagia & t'ra in p'd'ca villa de Yeuelchestre de nob' tenent' in burgagio vt p'd'cm est non obstant' Nolentes q'd p'd'ci Rob'tus Will's Joh'es Will's Will's Tholomeus & Joh'es vel heredes sui aut p'fate Priorissa & sorores vel successores sue r'one statuti p'd'ci aut alior' p'missor' p' nos vel heredes n'ros Justic' Escaetores vicecomites aut alios balliuos seu ministros n'ros vel heredum n'ror' quoscumqz impetant' inquietent' molestent' in aliquo seu g'uent' Saluis nob' & heredibz n'ris ac aliis Capitalibz d'nis feodi illius s'uiciis inde debitis & consuetis. In cuius &c. T R apud Westm' xxiiij die Marcij.

No. XII.

[Ilchester Almshouse Deed, No. 11—98.]

Nou'int uniu'si p' p'sentes nos Cristinam Priorissam Albe Aule de Yeuelchestre & Johannam Whyttokes monialem & consororem eiusdem Priorisse Joh'em Peny Thomam Drap'e Gilb'tum Bouche & Daud Hawes attornasse & loco n'ro posuisse dilectu' nobis Joh'em Smythe de Northov'e ad lib'andu' p' nobis & no'ine n'ro Rob'to Veel Ric'o Serle & Joh'i Glainvill' plenam & pacificam seisinam in & de o'ibus t'ris & ten'tis que nup' fuerunt Marci Whyttok in Northov'e & Somerton' Dat' die Martis p'x' post F'm Sc'i Mich'is Archang'li Anno regni regis Henr' sexti post conquestu' Sc'do.

No. XIII.

[Ilchester Almshouse Deed, No. 12—99.]

Sciant p'sentes & futuri q'd nos Cristina Priorissa Albe Aule de Yeuelchestr' & Johanna Whyttokes monialis & consoror eiusdem Priorisse Joh'es Peny Thom's Drap'e Gilb'tum (*sic*) Bouch & David Hawes dimisim' concessim' & p'senti scripto n'ro confirmavim' Rob'to Veel Ric'o Serle & Joh'i Glainvill' om'ia t'ras & ten' cum p'tin' que nup' fuerunt Marci Whyttok in Northov'e & Som'ton' H'end' & tenend' eisd'm Rob'to Ric'o & Joh'i Glainvill' hereditibz & assign' suis de Capit'libz D'nis feodor' illor' p' s'vicia inde debita & de jure consueta imp'petuu' In cui' rei testiom' sigilla n'ra p'sentibz apposuim' Hiis testibz Nich'o Moleyns Joh'e Welweton' Jun'. Joh'e Smyth' de Northov'e Ric'o Dole & alijs Dat' die Martis p'x' post F'm Sc'i Mich'is Archang'li Anno regni Regis Henr' sexti post conquestum Sc'do.

No. XIV.

[MS. Harl. 701. ff. 18, 19.]

$\left(\begin{array}{l} \text{Reddit' Capell' p'dict' cu' dom'} \\ \text{maner' eiusd'm et gardin' adiacen'} \\ \text{p' annu'} \end{array} \right)$	x ^s
$\left(\begin{array}{l} \text{Reddit' vnus cl'i pastur' vocat'} \\ \text{hichins cont' xx acr' dimiss' Ric'o} \\ \text{Beton et al' p' termino vite p'} \\ \text{Inden' per annu'} \end{array} \right)$	lx ^s

Redd' vnus ol'i pastur' vocat'
v. acres dimiss' Joh'ni Sampson
et alijs per Inden' p' ter'io vite
per annu'

v^a

Reddit' vnus Ten'ti cu' iij
acr' terr' arr' et vn' acr' prati in
Sockem'she ac quinte p't' vnus
ol'i pastur' vocat' newmede, ac iij
acr' prati de Sockem'she de d'nic'
d'ni dimiss' Joh'ni Whettell et
al' per inden' pro termino vite p'
Annu'

xiiij^a viij^a

Reddit' vnus Ten'ti cu' xij acr'
terr' iuxta le Spittell et iij acr'
prat' quaru' duar' acr' iacen' iux^a
le Cawsey et al' acr' iuxta le Spet-
till ac vn' claus' pastur' contin' vij
acr' iacen' iux^a Mille in Ilchester
dimiss' Thome Bloughton et al' p'
Indentur' pro termino vite ..

xxxiiij^a viij^a

Reddit' vnus Ten'ti in burgo de
Ilchester cu' vno acr' terr' in cole-
plate in Campo de Lymmyngton et
vn' acr' terr' iacen' in worthehill
ac vn' acr' terr' iux^a newe close vn'
acr' p'ti in newe mede et vn' acr'
p't in Sockem'she et vn' Orrei cu'
iiij acr' terr' arr' iux^a mowrewaie
ac vn' domu' brasiat' in burgo de
Ilchester cu' vn' acr' terr' arr' voc'
Batteacre. Acetiam decem acr'
pastur' iacen' ex^a le Bowe in burgo
p'd' dimiss' Humfr'o Blowghton et
al' per Indentur' pro termi'o vite
p' annu'

lxij^a iiij^a

Reddit' vnus ol'i pasture vocat'
corne spetill cont' p' est' x acr'
dimiss' Joh'ni Belly et al' p' Inden'
p' termi'o vite

xxvj^a viij^a

Capella de Whitehall	Val in	Redd' vj Sestr' p'ti qual't sestr' cont' vn' acr' et di' rod' in Ilchester modo dimiss' p'd' Joh'ni Bellie et al' p' copio'em p' annu'	xiiij ^a vj ^d	xix ^a xiiij ^a vj ^d Inde in
		Reddit' vnus ten'ti et iij acr' terr' arr' ac vn' acr' p'ti in Sockem'she, ij acr' et di' p't' in fotesmede et vn' acr' p'ti in newmede, acetiam duar' p'uar' claus' voc' hempland' dimiss' Will'o Owyn et al' p' Inden' p' termino vite p' A'	xij ^a vj ^d	
		Reddit' vn' Ten'ti et iij acr' terr' et vn' acr' p'ti ac quint' p't' vn' claus' pastur' vocat' newmede cu' iij acr' p't' in Sockem'she de d'nic' d'ni dimiss' Joh'ni Whegon et al' p' Indentur' pro termi'o vite p' annu'	xiiij ^a viij ^d	
		Reddit' vnus molendin' aquatic' granat' cu' vn' claus' vocat' le Milham in Ilchester dimiss' Will'o Berde et al' p' Indentur' pro termi'o vite p' Annu'	xl ^a	
		Redd' vn' curtillag' cu' gardin' adiacen' iux ^a le Shamell et viij acr' pastur' in Chilterne lease in p'och' de Chilterne domer dimiss' Thome Rodde et al' p' Indentur' pro termi'o vite	ix ^a ij ^a	
		Redd' vn' ten'ti cu' gardino et iij acr' terr' arr' vn' acr' p't' in Sockem'she, vn' acr' p't' in Newclose et ij acr' et di' prat' in fotesmede dimiss' Joh'ne Roper vid' p' annu'	xiiij ^a iiij ^d	
		Redd' v acr' pastur' iacen' in cl'o vocat' Newclose in campo de Ilchester dimiss' Joh'ni Cuffe p' annu'	v ^a	

Rep's in	Reddit' triu' ten't siue burgag' }	xxxiiij ^s viij ^d
	in Taunton et viij acr' prat' ib'm dimiss' Joh'ni Walferde per Annu' }	
	Redd' duoru' ten'tor' siue bur-	xiiij ^s iiij ^d
	gag' cu' gardin' in Taunton p'd' dimiss' Roberto Bowier al' Thomp-	
	son per Annu' }	
	Reddit' duor' ten'tor' siue bur-	xxiiij ^s
	gag' cum gardin' in Taunton p'd' dimiss' georgio Hamley p' annu' }	
	Reddit' resolut' d'no Regi p' }	xxv ^s vj ^d
	feod' firm' burg' de Ilchester p' }	
	annu' }	exting ^r
	Redd' resol' eid'm d'no Regi p' }	xij ^d
	sect' burg' s' de Ilchester p'd' an-	
	nuati' }	exting ^r
	Reddit' resol' d'co d'no Regi an-	vij ^d
	nuati' pro Chilterne lease .. }	
	Ffeod' Walter' Bragge Sen ^{li} et }	xx ^s Rex
	Rec' ib'm p' l'ras paten' concess' }	
	p' ter'i'o vite s' p' annu' }	exon'abit
Et val' clare p' annu'		xix ^{li} xiiij ^s vj ^d

Memorand' that the mano' of Ilchester aforesaid is the lorde marques Dorset'.

Ex^r p' Will'm Bourne deput' Will'i
Morice ar' p'tic' sup'uis' d'ni R' com' p'd'.

(The remaining portion of the Document, which is in English, has already been given at page 81).

No. XV.

[Card. Pole's Pension Book, fol. xxxb.]

Penc. { Georgij Carewe clic' vlt incu'b lib' } vj^u xiiij^s iiij^d
 Capell' Sc'e Trini^t in Ilchester

No. XVI.

[Pat. 42. Eliz. p. 19. mm. 1—11.]

Regina Om'ibz ad quos &c. salt'm. ————— Cumqz
 eciam nos p' al' l'ras n'ras paten' sub magno sigillo n'ro
 Angl' confect' geren' dat' quarto die Julij anno regni n'ri
 vicesimo nono Recitan' q'd cum nos p' l'ras n'ras paten'
 magno sigillo n'ro Angl' sigillat' geren' dat' apud Westm'
 decimo quinto die Januarij anno regni n'ri decimo sexto
 de gr'a n'ra sp'iali ac ex c'ta sciencia & mero motu n'ris
 t'didissem' concessissem' & ad firmam dimissem' nup'
 s'uien' n'ro Rad'o Hope adtunc defuncto totam illam lib'am
 Capellam n'ram vocat' Whitehall cum om'ibz suis iuribz
 membris & p'tin' vniu'sis in Com' n'ro Som's Necnon om'ia
 & singula domos edificia mesuag' toft' Cottag' curtilag'
 molendin' terr' ten' prat' pastur' & al' p'fic' co'ias bosco'
 subbosco' reddit' reu'co'es s'uic' aquas stagna aquar' cursus
 riuos &c. &c. scituat' iacen' & existen' &c. infra vill' paroch'
 hamlett' & campos de Ilcheston (*sic*) Northover Lymyngton
 & Taunton aut in ear' aliqua vel alibi in p'd'co Com' n'ro
 Som's d'ce lib'e Capelle quoquo modo spectan' vel p'tinen'
 aut vt membr' part' vel parcell' eiusdem lib'e Capelle siue
 possessionu' eiusdem tunc antea dimiss' locat' vsitat' occupat'
 &c. Que om'ia & singula eadem p'miss' tunc vel tunc nup'
 fuerunt in tenura siue occupaco'e Thome Dewport vel
 assign' suor' ac parcell' terr' & possessionu' in manibz n'ris
 existen' r'one Actus Parliamenti tunc nuper edit' p' dis-
 soluco'e Cantar' & al' h'mo'i in Com' p'd'co Ac om'ia &
 singula domos edificia &c. &c. quecunqz p'missis p'd'cis
 seu eor' alicui quoquo modo spectan' vel p'tinen' &c. p'
 reddit' sexdecem librar' & decem solid' in d'cis l'ris paten'
 reseruat' &c. Except' tamen semp' & nob' hered' &
 successoribz n'ris om'ino res'uat' om'ibz grossis arboribz
 que adtunc fuerunt marem' aut p' maremio adtunc reputa-
 bant' ac om'ibz huiusmodi pulchris lez Sapling' quecun'

in p'dict' bosc' existen' que ad marem' crescen' magis apt' & idonee viderent' Ac om'ibz ward' maritag' &c. &c. p'missis quoquo modo spectan' p'tinen' &c. H'endum & tenend' p'dict' lib'am Capellam ac cet'a eadem p'missa sup'ius in eisdem l'ris paten' recitat' cum suis iuribz membris &c. p'fato Rad'o Hope executoribz & assign' suis a tempore quo quedam Indentura & dimissio inde geren' dat' vicesimo octauo die Junij anno regni nup' p'charissimi P'ris n'ri Henrici octau'i nup' Regis Angl' tricesimo septimo p' Georgiu' Carowe Cl'icum Archidiacon' & adtunc p'd'ce lib'e Capell' magr'm p'd'co Thome Dewport Confect' p' t'mino quadraginta annor' a festo Annu'ciacio'is b'e Marie Virginis tunc vltimo p't'ito ante dat' eiusdem Indenture p' expiraco'em sursumreddico'em forisf'turam seu det'minaco'em inde aut aliquo alio modo tunc primo & p'x' vacari finiri seu det'minari conting'et vsqz ad finem t'mini & p' t'minu' viginti & vnus annor' extunc p'x' sequen' & plenar' complend' Reddendo inde extunc an'uatim nob' hered' & successoribz n'ris sexdecem libras & decem solidos legal' monete Angl' p'ut p'easdem l'ras patentes int' diu'sas conuenco'es in eisdem sp'ificat' plenius liquebat & apparebat. Nos p' easdem l'ras n'ras paten' geren' dat' p'd'co quarto die Julij d'co anno regni n'ri vicesimo nono p' consideraco'ibz in eisdem l'ris paten' exp'ss' t'did'im' concesserim' & ad firmam dimiserim' Gawino Phelips & Egidio ffathers totam illam p'd'cam nup' lib'am Capell' n'ram sc'e Trinitatis de Whitehall p'dict' ac totam ill' p'd'cam lib'am Capellam n'ram vocat' Whitehall cum om'ibz & singulis suis iur' membris & p'tin' vniu'sis in p'd'co Com' n'ro Som's' Necnon om'ia & singula domos edificia structur' horr' stabula hort' pomar' gardina &c. &c. d'ce lib'e Capelle quoquo modo spectan' & p'tinen' Except' tamen semp' & ext'eandem concessionem n'ram om'ino reseruatis quinque acris pastur' cum p'tin' iacen' apud Yerdend tunc vel nup' in tenura siue occupaco'e Ric'i Sansan vel assign' suor' ac vna domo vocat' a Stable in Ilchester p'd'ca nup' in tenura Ric'i Cuffe vel assign' suor' ac vna domo vocat' Whitehall cum p'tin' ac' om'ibz illis quinqz acris terr' cum p'tin' in Ilchester p'dict' iacen' iuxta Tuckers lez que tunc nup' scil't t'cio die Aprilis anno regni n'ri decimo octauo fuerunt in tenura siue occupaco'e Joh'is Phillips vel assign' suor' ac p' l'ras n'ras paten' magno Sigillo n'ro Anglie sigillat'

geren' dat' apud Gorhambury d'co t'cio die Aprilis d'co anno regni n'ri decimo octauo p'dile'o & fideli Consiliar' n'ro Christofero Hatton militi p' nomen Dile'i nob' Christoferi Hatton armig'i & hered' suis (int' alia) dat' & concess' attingen' ad an'ual' reddit' decem solidor' & duor' denarior' except' eciam p'ut in eisdem l'ris paten' excipiunt' h'end' & tenend' totam p'd'cam lib'am Capellam Sc'e Trinitatis de Whitehall ac p'd'cam nup' lib'am Capellam vocat' Whitehall ac om'ia p'dc'a terr' tenementa p'ta pasc' pastur' &c. except' p'except' p'fat' Gawino Phillips & Egidio ffathers executoribz & assign' suis a festo Annu'ciaco'is b'e Marie Virginis quod actunc esset in anno d'ni mill'imo sexcentesimo sexto vsqz ad finem t'mini & p' t'minu' viginti & vnus annor' extunc p'x' sequen' & plenar' complend' Reddendo inde extunc an'uatim nob' heredibz & successoribz n'ris quindecem libras nouemdecem solidos & decem denarios legal' monete Angl' p'ut p' easdem l'ras paten' plenius eciam liquet & apparet —————

Sciatis q'd nos p' & in consid'aco'e su'me quatuor mille octingentar' septuaginta triu' librar' vnus solidi octo denarior' legalis monete Angl' &c. p' dile'os subditos n'ros Mich'em Stanhope armig'um vnu' Gromett' priuate Cam'e n're & Edwardum Stanhope in legibz Doctorem ac vnu' mag'r'or' Cancellar' n're ad vsum nr'm solut' &c. dedim' & concessim' ac p' p'sentes p' nob' heredib' & successoribz n'ris dam' & concedim' p'fat' Mich'i Stanhope & Edwardo Stanhope hered' & assign' suis totum illud maner' nr'm de Vpton in paroch' de Blewbery in Com' n'ro Berk' —————

————— Rc'oriam & Eccl'iam n'ram de Wigenhall in Com' n'ro Norff' ————— medietatem decimar' &c. in Carleton Colville in Com' n'ro Suff' ————— Hony Lane in Ciuitate n'ra London ————— Harden &c. in Com' Cestr' ————— Pendevy in Com' Cornub' —————

————— Dedim' eciam & concessim' &c. ac p' p'sentes damus & concedim' p'fat' Mich'i Stanhope & Edwardo Stanhope, heredib' & assign' suis totam ill' lib'am Capellam n'ram vulgarit' vocat' Whitehall alias dict' lib'am Capellam Sc'e Trinitatis de Whitehall p'dict' cum om'ibz & singulis suis iuribz membris & p'tin' vniu'sis iacen' & existen' infra vill' paroch' siue hamlett' de Ilchester Northover Taunton & Lymyngton aut in eor' aliquo vel alibi in Com' n'ro Som's' eidem lib'e Capelle vulgarit' vocat' Whitehall p'dict'

spectan' siue p'tinen' p' particular' inde a'nual' reddit' siue valoris quindecem librar' nouemdecem solidor' decem denarior' parcell' possessionu' in manibz n'ris existen' virtute Actus Parlamenti p' dissolucio'e Cantariar' & al' huiusmodi nup' edit' & p'uis' — Hucknall Torkerd, &c. in Com' Noting' — Whitingstreete in Bury in Com' n'ro Suff' &c. — Aceciam om'ia & singula mesuagia molendina domos &c. &c. p'missis p'tinen' &c. adeo plene lib'e & integre &c. &c. — Quequidem Capella S'ce Trinitatis de Whitehall p'dict' & cet'a p'missa eidem Capelle p'tinen' p' particular' inde extendunt' ad clarum a'nuu' redditum siue valorem quindecem librar' nouemdecem solidor' decem denarior' p' Annu' — except' tamen semp' & nob' heredibz &c. aduocaco'ibz donaco'ibz &c. — h'end' tenend' & gaudend' p'fat' Mich'i Stanhope & Edwardo Stanhope heredibz &c. ad solum & p'priu' opus & vsum &c. Tenend' — p'd'cam Capell' S'ce Trinitatis de Whitehall p'dict' &c. de nob' heredibz & success' n'ris vt de man'io n'ro de Eastgrenewich in Com' n'ro Kanc' p' fidelitatem tantum in lib'o & co'i socagio & non in Capite nec p' s'uiciu' militare p' om'ibz al' redditibz s'uicijs exacco'ibz & demand' quibuscunqz p'inde nob' heredibz vel successoribz n'ris quoquo modo reddend' soluend' seu faciend' — a festo sc'i Mich'is Arch'i vltimo p'tito hucusqz p'uenien' siue crescen' h'end' eisdem Mich'i Stanhope & Edwardo Stanhope ex dono n'ro absqz Comp'o seu aliquo alio p'inde nob' heredibz vel successoribz n'ris quoquo modo reddend' soluend' vel faciend' — Et de tempore in tempus exonerabim' &c. ab om'ibz & om'imod' corrod' reddit' feod' a'nuitat' penco'ibz porco'ibz quibuscunqz &c. — Volum' eciam &c. absqz fine in hanap'io &c. — In cuius rei &c. T R apud Westm' xxvij die Junij
p' br'e de priuato sigillc &c.

A D D I T I O N S .

Page 17.—A case of the Prioress of Iuelcestre against Stephen, son of Richard Kayllewey, of plea of assize of mort d'auncestor, was essoined at the assizes held at Puntinton, on Monday next after the feast of S. James the Apostle, 9 Edward I., the 28th of July, 1281, to Thursday next after the feast of S. Bartholomew, the 28th of the August following, at Somerton.*

Page 23.—Against one of the offenders the Prioress obtained at least a partial satisfaction, for at the assizes at Bath, before Henry Spigurnel and Richard de Rode-neye, on Thursday next after Easter three weeks, 14 Edward II., the 14th of May, 1321, Alice de Chilterne, Prioress of La Blaunche Sale of Yvelcestre, complained by her attorney against John, son of Peter de Draycote, of plea of trespass. He made no appearance, and a precept was issued to the Sheriff to levy a distress on the lands of the said John, and to pay the demand from the issues thereof, and further to bring the said John himself before the Justices at Somerton, on Monday, the morrow of S. Lucy, Virgin, the 14th of the following December.†

Page 27.—The case seems to have been one in which the law's delays were more than ordinarily instanced, for so

* Rot. Assis. 9 Edw. I., $\left. \begin{smallmatrix} N \\ 2 \end{smallmatrix} \right\} 7. m. 15 dora.$
4

† Rot. Assis. Somers. 14 Edw. II., $\left. \begin{smallmatrix} M \\ 5 \end{smallmatrix} \right\} 1. m. 19.$
16

late as at the assizes, held at Cherde, on Wednesday next after the close of Easter, or Quasimodo Sunday, 19 Edward II., the 2nd of April, 1326, the Prioress complained against Nicholas de Boleville, chivaler, John de Herounville, John le Doo, Nicholas le Dyghere, and Agnes his wife, Nicholas de Sok, Thomas Cole, sen., Gilbert le Shephurde, of Somerton, Ralf Gydie, Robert de Sok, William le Cartere, of Sok, and William le Ballere, of plea of assize of novel disseisin. The case was adjourned to Monday next after the feast of S. James the Apostle, 20 Edward II., the 28th of August following, at Somerton, on which day the Prioress did not appear, and judgment went against her accordingly.*

Page 31.—The case between Prioress Cecily and her Sisters against Gilbert Passeware and Simona his wife is a most curious specimen of litigation, and deserves a more extended notice than that which I have given it. The question at issue was the validity of a certain deed of agreement, by which, as it was asserted by the plaintiffs, Simona Passeware was entitled to the benefit of a corrody, the particulars of which I have already given. The agreement referred to was as follows:—"To all to whom this present writing shall come, Cecily, Prioress of White Hall of Yewelcestre, and the Brethren and Sisters of the same House, health in the Lord. Know ye that we with unanimous assent and consent have given, granted, and by this present writing confirmed to Simon le Lyt a place within the close of our House of White Hall of Ywelcestre, to build in the same at the cost of the said Simon. We have also given, and by our present writing have confirmed to the aforesaid Simon a corrody of one Sister

*Rot. Assis. Somers. 19 & 20 Edw. II. ^M5 } 3. mm. 3, 10 dors.
16 }

in our House aforesaid, in food and clothing and in all other necessities, as any Sister there has or has been wont to have, or for the rest of the time shall hap to obtain, in money or in eatables, habit and veils, with all things affecting them, and affecting in both ways the state of a Sister, or in secular clothes, to the true value at the will of the said Simon : to have and to hold for her whole life, of us and of our successors, freely, quietly, entirely, well, and in peace; for a certain sum of money which we have received from the said Simon. And we the aforesaid Cecily, and the Brethren and Sisters of our House of White Hall aforesaid, and our successors will warrant, acquit, and defend all the aforesaid place and superstructure, and all the aforesaid corrody in food and clothing with all things affecting them, as is aforesaid, to the said Simon for the whole of her life against all men. In witness whereof we have to this writing affixed our common seal."

My reader may be glad to have the text of this agreement. It ran thus:—

Vniu'sis ad quos p'sens scriptu' p'uen'it Cecilia Priorissa Albe Aule Yeuelcestr' & eiusdem dom' f'res & sorores salt'm in d'no Nou'itis nos vnamini assensu & consensu dedisse concessisse & hoc p'senti scripto confirmasse Simoni le Lyt vnam placeam infra clausum dom' n're Albe Aule Yuelcestr' ad edificand' in eadem sumptibz eiusdem Simonis. Dedim' eciam & p'senti scripto n'ro confirmauim' p'fate Simoni corrodiu' vnus sororis in domo n'ra p'd'ca in victu & vestitu & in om'ibz alijs necessar' tanq'm quelibet soror' ibidem h'et aut h'ere consuevit vel de cet'o optinere contig'it in denar' v'l in cibarijs abitu & velis cu' om'ibz ea tangentibz statu' sororis vtrobiqu' tangentibz vel in pannis secularibz ad verum valore' ad voluntatem eiusdem Simonis. habend' & tenend' ad tota' vitam suam de nob' & successoribz n'ris lib'e quiete integre bene & in pace. p' q'dam su'ma pecunie quam ab eadem Simone recepim' Et nos vero p'd'ca Cecilia & fr'es & sorores dom' n're Albe Aule p'd'ce & successores n'ri totam p'd'cam

placeam & sup'edificatam & totu' p'd'cm corrodiu' in victu & vestitu cu' om'ibz ea tangentibz vt p'd'cm est, d'ce Simoni ad tota' vitam suam cont^a om'es mortales War' acquiet' & defendem' In cuius rei testimoniu' huic scripto sigillu' n'rm co'e apposum'.*

The Prioress argued that this instrument could not refer to the plaintiffs or avail for them, inasmuch as it was clear from the writing exhibited that the grant aforesaid was made to one Simon—"Simoni"—le Lyt, which name could not be understood otherwise than as the name of a man and not of a woman; and that in all other places of the same, where the name occurs, it was used as such. She prayed for judgment accordingly, inasmuch as the grant could not be understood as made in favour of the plaintiff, as she was not named in the same by her right appellation. The plaintiffs replied that by the very words of the writing it was sufficiently clear that the grant was made to Simon the plaintiff, and not to any male person, inasmuch as in different places of the same writing the same name is determined by an adjective of the feminine gender, to wit, in the clause "confirmavimus prefate Simoni," and in that "pro quadam summa pecunie quam ab eadem Simone" &c., and in that "Warantizabimus diete Simoni," &c. and prayed in their turn for the judgment of the court. A day was hereupon appointed to the parties for the hearing of the case, which was fixed for Monday next before the feast of S. Gregory, Pope, the 10th of April, 1342-3, and the necessary writs were issued accordingly.

Page 41.—The proximity of the Priory to the old County Prison, before that establishment was transferred to the north shore of the Ivel, is unpleasantly indicated by the proceedings of a Gaol Delivery at Yewelchestre, before

* Rott., Assis. Div. Com. $\left. \begin{array}{c} N \\ 2 \\ 22 \end{array} \right\} 3. m. 56.$

William Skrene and William Cheyne, the Justices assigned for that office, on Thursday next after the feast of S. James, the Apostle, 2 Henry V., the 31st of July, 1414. It appears that William atte Nassh, son of John atte Nassh, of Homere, was taken under an indictment before Robert Hill and his fellows, justices of the peace, for that he with other persons unknown did on the night of Thursday next before the feast of S. Nicholas, Bishop, 12 Henry IV., which is coincident with the 4th of December, 1410, with great violence break and escape from the gaol of our lord the king at Yewelchestre, in the custody of Richard Boyton, then sheriff of Somerset, with two levers and other fine instruments contrived for breaking the door, stocks, and other fastenings of the said gaol, used for the safe keeping of the prisoners there, and also did feloniously take and lead away John Ffisher, of Strete, the approver, and Walter atte Nassh, prisoners in the said gaol, by conveying them, with heavy fetters of iron firmly remaining round their legs, within the sanctuary of the Priory of White Hall, to wit, within the cemetery of the Church of the Holy Trinity of the same Priory. The prisoner was placed on his trial, and pleaded not guilty. The jury took a merciful view of his case, on what grounds we are not informed, and returned a verdict of not guilty of the felonies aforesaid or of any one of them.*

* Delib. Gaol. 1 & 2 Hen. V. No. 1.

On the Middle and Upper Lias of the South West of England.

BY CHARLES MOORE, F.G.S.

IN a paper on the "Zones of the Lower Lias and the *Avicula contorta*," in the Journal of the Geological Society for November, 1861, the relative positions of those beds to the Middle and Upper Lias of the neighbourhood of Ilminster were pointed out.

The district around Ilminster presents considerable variety in its geological character. A bird's-eye view, taken from the north west of the town, would shew at no great distance the lofty range of the Quantocks, of Devonian age, whilst at their base, stretching towards Ilminster, might be found the variegated and red marls of the Keuper. On these, five miles distant, at Beer Crowcombe, were found the thin representatives of the Rhœtic beds of the continent noticed in the above-mentioned paper. Resting on the latter, succeed the saurian and other limestones and marls of the Lower Lias, which, though in great part covered by beds of drift, reach to the foot of the hill west of Ilminster and pass under the beds to be hereafter described. Within half-a-mile on the east, the Middle and Upper Lias, on which the observer stands, may be seen passing under the oolitic, or as denominated by others, the upper liassic sands, and the inferior oolite; whilst two or three

miles to the south the latter are covered by the range of green sand and chalk, which, passing from the neighbourhood of Crewkerne, around Chard, is then continued in the Blackdown Hills of Devonshire.

The beds we propose to describe are all superior to the *Ammonites raricostatus* zone, the highest member of the Lower Lias, and below the yellow sands, until lately classed with the inferior oolite. We shall also refer to beds in the Bath district, which occupy a lower position in the series than any at Ilminster, and which, at the latter place, so far as we know are wanting.

At Ilminster the beds may be grouped in the following zones, in ascending order:—

GENERAL DIVISIONS OF MIDDLE AND UPPER LIAS
AT ILMINSTER.

1. THE MIDDLE LIAS.

		ft.	in.
1 a	Blue and gray micaceous marls with intercalated nodular sandstones	100	0
b	Yellow micaceous brick marls with sandstones	30	0
c	Irony sands with ironstone nodules	20	0
d	Marlstone, the workable stone of the district, average	8	0
	Greenish sand full of <i>Belemnites</i> <i>paxillosus</i>		4
	Marlstone, highest member of Mid- dle Lias		4

2. THE UPPER LIAS.

		ft.	in.
A	The Leptæna Clays	1	6
B	The Saurian and Fish Beds ..		8
C	The Ammonite Beds	8	0

3. YELLOW SANDS OF INFERIOR OOLITE.

Sections of the Middle Lias below the marlstone, or those included in the zones 1 *a*, *b*, *c*, are rarely exposed, so that neither their precise divisions, nor their organic contents are to be very satisfactorily made out. My friend Mr. Day, has lately described their general characters in an admirable section near Lyme, to which we shall have occasion to refer.

These zones are crossed in approaching Ilminster from the west. After passing from the Lower Lias, the first group of the Middle Lias, 1 *a*, may be observed in a canal cutting between Ilminster and Dowlish Ford, and in the railway cutting towards Donyatt, where the beds are composed of blue and brown micaceous marls, with occasional concretionary masses containing pentacrinites, &c., and they were opened up in an excavation made for a building on the same horizon, at Haslewell, in which the *Ammonites Bechii* was found.

The above beds graduate insensibly into marls of a grey or yellow colour embraced by zone 1 *b*, which is to be seen in a brickyard at Cross, and in another at the village of Lambrook, near South Petherton. Large nodular masses of sandstone are found in this zone. A list of organic remains will be hereafter given, amongst them are found the *Ammonites margaritatus* and *Rhynchonella furcillata* in abundance. *Ammonites serpentinus* also occurs in this zone, having hitherto only been observed in the Upper Lias.

Zone No. 1 *c*, is composed of rusty-looking irony marls, with frequent nodules of ironstone. We have observed them in the road leading out of South Petherton towards Martock, and also immediately under the next zone of the marlstone, in the neighbourhood of Wotton-under-Edge, Frocester, and Newent in Gloucestershire.

Resting conformably on the latter, succeed the beds of the

marlstone, embraced in zone 1 *d*, for the extraction of which nearly all the quarries in the Middle and Upper Lias are opened up. The workable beds of this group are sometimes eight in number, lying immediately one upon another, but in some instances are reduced to two, and accordingly vary in different localities from 12 ft. to 3½ ft. in thickness. Included in this is an argillaceous band of marl, four to five inches thick, characterized by the enormous number of belemnites it contains. Upon this band rests a thin layer of marlstone, generally without organism, constituting the highest member of the Middle Lias. Its upper surface is covered by a thin spongy-looking limy deposit of a yellow colour.

2. THE UPPER LIAS.

Under this head are included various thin beds of clay and stone, which usually have to be passed through to reach the beds of the marlstone before mentioned, and which are interposed between the latter zone and the inferior oolite. They only average eight feet in depth in the West of England, a thickness quite insignificant when compared with their equivalents, the alum shales of Yorkshire, or even with the zones they represent in some of the sections in Gloucestershire, which are there as many feet in thickness as they are inches in the district under notice. The whole of these beds are crowded with organic remains, some of which are of the highest interest to the palæontologist.

When the saurian and fish bed is present, which is not always the case, they may be divided into the following groups:—

A. THE LEPTÆNA CLAYS.—These lie in immediate contact with the marlstone, and consist of several thin bands of laminated clay about 18 inches in thickness, in which

appear four species of the palæozoic genus *leptæna*, which was supposed to have become extinct with that era, together with numerous other fossils which will be noticed hereafter.

B. THE SAURIAN AND FISH ZONE.—When the quarries are worked, the heading, which consists of the beds contained in the next group, is removed down to the saurian bed, which is then exhibited in irregular elongated or rounded patches, frequently extending to some distance. They present flattened pavement-like forms, of a yellow colour externally, but at times bluer in the interior. From the contraction of the bed the separate patches are divided vertically in every direction, like septaria, but without any subsequent infiltration into the cracks by which the fractured sides have been again united. The bed when thus seen in the Ilminster district is rarely more than five inches in thickness, unless it encloses some organic remains, the presence of which would probably be indicated by a thickening of the matrix surrounding it, though usually when they are of any size, they are in detached boulders. These portions of the saurian and fish beds are not concretionary, but are evidently the remains of a continuous bed, which was afterwards subject to denudation. The boulders exhibit regular sedimentary laminæ, and together with the thinner portions of the bed contain insects, small fish of the genus *leptolepis*, crustacea, ammonites, &c.

C. THE UPPER CEPHALOPODA BEDS.—This group is intended to include all the other beds of the Upper Lias, above the saurian zone, to the inferior oolite. They are characterized by the enormous number of ammonites they contain. Many of the species are also found in the saurian zone and in the upper portion of the *leptæna* clays, but in the latter they are usually in flattened impressions only. The *Ammonites Moorei* and *A. insignis*, which have been

found to pass upwards into the cephalopoda beds above the sands of the next stage occur only in the very highest member of the Upper Lias, immediately under the sands, which are to be seen resting on the Upper Lias at White-lackinton, at Shepton Beauchamp, and between that village and South Petherton ; but the cephalopoda bed, as it occurs in Gloucestershire, is only to be seen at Compton, near Yeovil, and a section shewing its relative position to the beds now described will be hereafter given. The lithological distinction between the yellow sands of the inferior oolite and the Upper Lias, and the marked difference in the general facies of their fauna, have prevented my recognizing the propriety of including the former with the Upper Lias.

SECTIONS OF MIDDLE AND UPPER LIAS.—These beds are developed in the neighbourhood of Ilminster, in three ranges of hills, of slight elevation, having, usually a dip to the south. Owing to the inclination of the strata in the first or north range, which commences at Puckington, the upper marls of the Lower Lias occur at its northern base, and graduate into the irony and grey micaceous marls and clays, which constitute the lower zones of the Middle Lias. Although from cultivation, and the absence of sections, this part of the series is not easily observed, there is little doubt that they occupy the greater thickness of the northern escarpment of this range ; whilst the marlstone for which the quarries, on the top of the hill, are worked, and the Upper Lias that overlies them follow in successive stages, and are to be observed on the southern slope. Between the Puckington range, and the second immediately north of Ilminster, a distance of about two miles, the beds have been denuded, and the valley is occupied by a rich alluvial deposit.

In the Ilminster range the beds are to be observed under similar circumstances. The lower beds cropping out on the northern side, and the marlstone and Upper Lias again occupying the southern slope, but with this difference, —that about the middle of the town there appears to be a considerable fault, which has brought down the inferior oolite from Butts to Townsend, to a depth of probably forty feet.

Between this range and the one commencing at Earn Hill, about a mile to the south, there again occurs another alluvial tract. The arrangement and position of the beds in the latter are the same, but their dip being much greater, they are soon lost beneath a range of greensand and chalk to the south.

As these beds proceed from west to east, from their commencement at Earn Hill, last mentioned, their upper members have been denuded where they are crossed by the road leading from Ilminster to Chard, and at this point the clays, included in zone 1 *b*, are exposed in a brickyard at Cross. A short distance from this, the Upper Lias and the marlstone again come in, overlooking the hamlet of Moolham, where the latter zone has been very extensively worked. They then continue to Kingstone, where, within about a mile and a half of their western limit at Earn Hill, the beds pass under the inferior oolite.

The quiet little town of Ilminster, embosomed in orchards, stands partly on the southern slope of the second range. The beds pass from west to east by Dillington and Whitelackington, when, like the former, at a distance of two miles, they are also covered by the inferior oolite.

The range further to the north, which commences at Puckington, has a more circuitous route, and passes from thence to the village of Barrington, Shepton Beauchamp,

South Petherton, and Stoke-sub-Hamdon, at the latter place the beds pass under Hamdon Hill, the inferior oolite from which furnishes the district with an excellent building stone. On the eastern side of this hill they again appear, taking the direction of Yeovil, where, to the south east they entirely disappear under later formations. At Trent, Sandford, and Rimpton, on the north east of Yeovil, the beds have been extensively worked, and afford interesting sections, particularly as their passages into the inferior oolite are in some of them well shown. From this point, to the neighbourhood of Bath, the beds are with difficulty to be recognized as distinct formations, their presence being indicated only by narrow belts of marl or clay, at the base of the oolitic escarpments.

Brent Knoll, the Tor Hill at Glastonbury, and the Pen-nard Hills, are however exceptions, and form remarkable outliers of Middle and Upper Lias, indicating by their isolation the extent of denudation to which the districts, wherein they are situated, must have been subjected.

MIDDLE AND UPPER LIAS NEAR BATH.—Mr. Lonsdale, when writing on the Bath district, says, *Geo. Tran.* vol. 1, p. 100, that "The marlstone, (with which was then included the Upper Lias,) was probably co-extensive with the hills surrounding Bath, yet that it was rarely to be seen, he having observed it only at Box, Batheaston, and the descent from High Barrow Farm to Pennyquick Bottom, whilst Mr. Smith also gave Bathampton and the Coal Canal as two of his localities." We find Mr. Lonsdale's supposition to be correct, and that the beds are to be traced almost continuously along the escarpment of the hills surrounding Bath, though from the few sections made in them they are seldom opened up. In addition to the above localities, we have observed them at Kelston, near

Beech, at Upton Cheyney, under Lansdowne, and above Cranwells, on the side of Beechen Cliff, and in the Lyncombe Vale, at Monckton Combe, and at St. Catharines. The reservoirs of the Bath Water Works at Bathampton, are in the Middle Lias, and the beds were opened along the line of railway from Bath to Weymouth, at Limpley Stoke. On the top of Bitton Hill, the Upper Lias is composed of several ferruginous-looking beds of stone, with what appears to be a single bed of the Middle Lias marlstone immediately beneath, without any intervening beds of clay. An extensive fault at this point places them on the same level as the Lower Lias. From Radstock, Camerton, and Paulton, interesting sections will be hereafter given.

MIDDLE AND UPPER LIAS OF GLOUCESTERSHIRE.—After skirting the base of Lansdowne, near Bath, which forms the southern termination of the Cotteswold Hills, these beds may be traced along the whole western side of that range in its passage through Gloucestershire, though often they are but thinly represented in its escarpments, and only worked at wide intervals. At Wotton-under-Edge and Dursley they have a larger development, and present much the character of the sections around Ilminster. They continue from the former districts by way of Frocester and Leonard Stanley, surrounding the valley of Stroud, and from thence to the east of Gloucester and Cheltenham, to Chipping Campden, on their way to the iron manufacturing districts of the North of England. In the neighbourhood of Gloucester there are two small outliers, on platforms of the Lower Lias, at Robin Hood's Hill, and Churchdown, and to the north of Cheltenham there are others at Stanley, Oxenton, Bredon, and Dumbleton, to some of which reference will be hereafter made.

ECONOMIC IMPORTANCE OF THE UPPER AND MIDDLE LIAS.—Since the discovery that the Middle Lias

formation of the North of England, yields, over a large area, an iron ore giving an average of about 32 per cent. of metallic iron, these beds have attained a commercial importance, second only to our coal deposits. The beds under notice are the precise equivalents of the Yorkshire deposits, from which upwards of 600,000 tons of iron are annually being manufactured. When the value of this ironstone became known a few years since, we lost no time in testing the value of the deposits in the West of England for the same mineral, but although in most instances the beds look more ferruginous than their northern representatives, their average yield of iron in the district owing to the rock being much more siliceous is about 16 per cent., a little less than one half, a circumstance much to be regretted, both for the Welsh ironmaster as well as for the district, for had it been otherwise, an inexhaustable supply might have been obtained at the surface over a very extended area in this part of England. It is also to be regretted by the Palæontologist, for had the beds of the marlstone in some parts of this district been more extensively worked, the Upper Lias resting upon it would yield its marvellously perfect organisms in greater abundance, and the saurians and fishes now probably destined to remain undiscovered along the slopes of the hills would be more frequently brought to light. In the neighbourhood of Bitton, the Middle Lias yields an average of 22 per cent. of metallic iron, and there are beds in the Limpley Stoke Valley, and in other places around Bath, giving about 30 per cent., and it probably only arises from the accident that these beds are not quite thick enough to work profitably, that the beautiful district around that city is not converted into one for the manufacture of iron. Some years since the roads in the Ilminster district were repaired with the marlstone, but latterly

the mammal drift gravel, a more durable material, has been employed, in consequence of which many of the quarries have been entirely closed.

In the year 1829, the town of Middlesborough, in Yorkshire, which is now the chief seat of iron manufacture, was occupied by a solitary farm house ; but the population now amounts to about 25,000. In the district there are 600 square miles of land, under which the ironstone of the Middle Lias is to be found. It has been stated that one landed proprietor owns land which would realize, in the money value of its *manufactured* iron, money enough to pay off the national debt. I have often pictured to myself the wonderful revolution that might have been effected at Ilminster, under the same favourable circumstances. Some of the land would have yielded 30,000 tons of ironstone to the acre, which at a royalty of 4d. per ton, would have realized £5,000 per acre. The incomes of the landed proprietors would have been largely increased ; the pretty little town would have been extending in every direction ; railway companies would long since have contended for its traffic ; money wages, to the extent of many thousands per week, would have been in circulation ; the clang of the forge would have resounded, and its hills lit up by the lurid glare of blast furnaces. Indeed the whole aspect of the district would have been changed into one of general bustle and commercial prosperity.

ANALYSIS OF THE ILMINSTER MARLSTONE.

Carbonate of iron	36	53
Carbonate of lime (with a little of the carbonates of magnesia, manganese, &c.) ..	30	14
Insoluble sand and clay	33	33
	<hr/>	
	100	00

The total quantity of iron present amounts to 15.91 per cent., this being the mean of two experiments, viz. :—

I.	II.	MEAN.
16.09	15.74	15.91

The clays which rest upon the marlstone in the west of England are the representatives of the alum shales of Whitby, on the north coast, where they have, for many years, been largely worked for the manufacture of that material, those clays, which are here but of a few inches in thickness, having there a large development. It is also from certain members of these Upper Lias shales that the jet is obtained, which is so well known in the manufacture of ornaments. Some bands of the shales are worked expressly for the extraction of this article, in doing which, at uncertain intervals, are found flattened pieces of the ancient trees of the period, which are converted into the beautiful articles to which I refer. The pieces are never of large size. The high price of jet is accounted for by the difficulty of obtaining it. A piece in my museum cost, in its natural rough condition, five guineas, though measuring only 18 in. by 12 in. To the outside of this block there are attached a number of *Inocerami*, shewing that before it was covered up, it had been floating in the ocean in which these shells then abounded.

Having given a general outline of these formations in their passage through Somersetshire into Gloucestershire, we now propose to describe one of the more interesting sections at Ilminster, from the marlstone, upwards, in greater detail, as typical of those in that district. With this we shall then compare other sections, and afterwards proceed to an examination of the organic contents of the different beds.

SECTIONS IN THE ILMINSTER DISTRICT.

On comparing the sections which follow it will be seen that

very considerable variety exists in the Middle and Upper Lias. Although they may be found in the same locality, not only do they differ as regards the number and thickness of the beds, but often also with reference to their organic contents. This is more especially the case with the Upper Lias. The marlstone at its base, for which the quarries are worked, is continually faulted in the direction of its dip to the south, from this cause, and partly perhaps from the contraction of the beds, they are everywhere found disturbed and much fissured, and usually occupying narrow terraces on the slopes of the hills. This has allowed them to give way more readily to denuding action, and may account for much of the variety that is seen. From the above causes the thin beds, which in this district constitute the Upper Lias, are correspondingly modified. Although the chief features in the sections may be readily noticed, it is often difficult, and may require care to make out satisfactorily the more minute divisions which are shewn in the following section at Strawberry Bank. This was worked from my boyhood, and from it were obtained most of the saurian and fish remains that enrich my museum. On my last visit to Ilminster, I observed with much regret that the section had been filled in, probably never again to be worked.

1. THE MIDDLE LIAS.

1 d	<i>The Marlstone.</i> —Various irregular thick bedded ferruginous rocks, penetrated by vertical fissures, and containing <i>Pecten æquivalvis</i> and various other organisms ..	ft.	in.
		10	0
e	A bed of greenish marl characterized by containing immense numbers of <i>Belemnites parillosus</i>		4

<i>f</i>	A bed of ferruginous stone, the highest member of the Middle Lias	ft.	in.
			5

2. THE UPPER LIAS.

A. THE LEPTÆNA BEDS,

which under favourable circumstances, may be divided into

<i>a</i>	A band of yellow clay resting immediately upon the Middle Lias, the zone of the <i>Leptæna Bouchardii</i> , and <i>L. Moorei</i>	2
<i>b</i>	Variegated yellow and green laminated clay	1
<i>c</i>	Dark brownish clay. Zone of <i>Thecidium rusticum</i>	4
<i>d</i>	Greenish clay. Zone of <i>Alaria unispinosa</i>	2
<i>e</i>	Greenish clays, divided by a thin iron band, the zone of <i>Leptæna granulosa</i> , <i>Spirifera Ilminsterensis</i> and <i>Zellania liassica</i>	6

B. THE SAURIAN AND FISH ZONE.

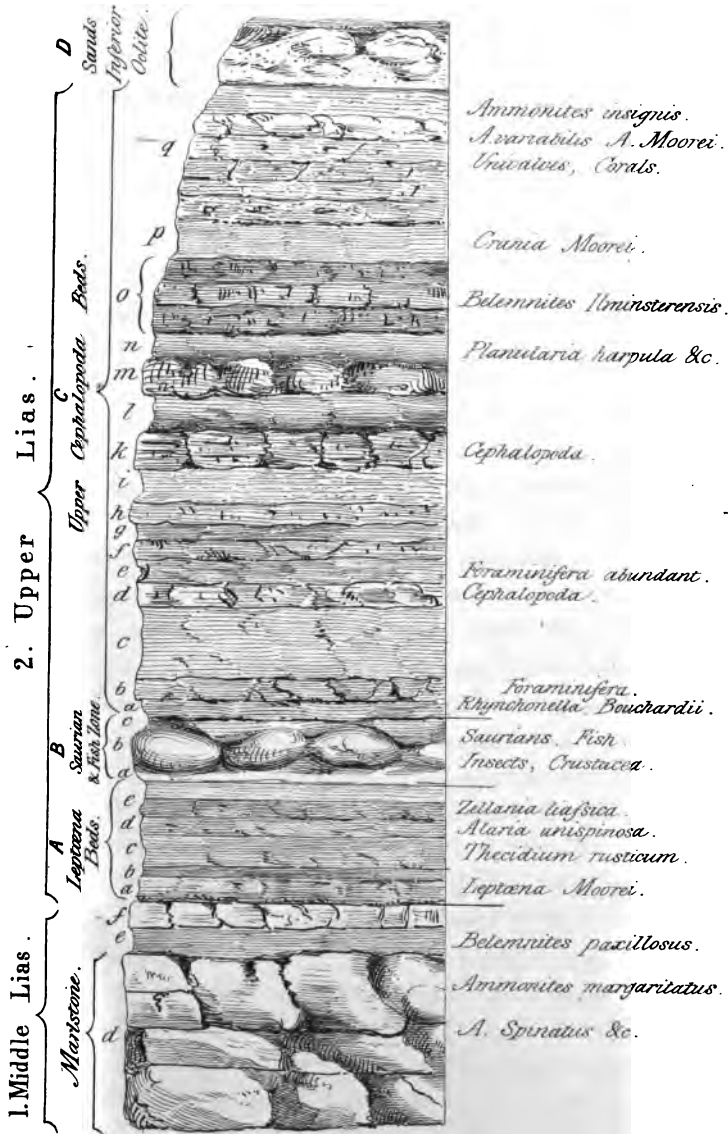
<i>a</i>	Bed of clay beneath the fish bed ..	3
<i>b</i>	The saurian and fish bed—a yellow nodular, or septarian limestone, with enclosed organisms ..	4-5½
<i>c</i>	Clay above fish bed	2½

C. THE UPPER CEPHALOPODA BEDS.

<i>a</i>	Yellow and green clay. Zone of <i>Rhynchonella Bouchardii</i> ..	2
<i>b</i>	Layer of stone	1½
<i>c</i>	Concretionary blue clay	9
<i>d</i>	Rubbly stone	3
<i>e</i>	Blue mottled clay	3
<i>f</i>	Stone	1½

SECTION AT ILMINSTER.

SCALE $\frac{3}{4}$ IN. TO A FOOT.



					ft.	in.
<i>g</i>	Gray clay	..	..	..	..	4
<i>h</i>	Stone ..	..	..	..	..	3½
<i>i</i>	Gray clay	..	..	..	..	3
<i>k</i>	Rubbly stone	..	..	..	..	4
<i>l</i>	Gray clay	..	..	..	..	5
<i>m</i>	Rubbly brown stone	..	..	..	..	4
<i>n</i>	Light blue clay	...	..	..	..	3
<i>o</i>	Three layers of drab-looking clay and stone	..	..	..	..	9
<i>p</i>	Light blue clay, with <i>Crania Moorei</i>					4½
<i>q</i>	Eight bands of clay and stone, often from disturbance not separable, with <i>Ammonites insignis</i> <i>A. variabilis</i> , and <i>A. Moorei</i> , about	..	..	..	2	0

D. YELLOW MICACEOUS SANDS OF INFERIOR OOLITE.

In the foregoing section it will be seen that although the beds of the Upper Lias, above the marlstone, are in the aggregate but from eight to nine feet in thickness, they present a remarkable variety in lithological condition, indicating that they must have been deposited slowly, and that there were probably periods of rest during their accumulation. This is satisfactorily proved by the fact, that although some of the cephalopoda have ranged through them, yet in other respects, each thin layer can, by careful and minute examination, be shewn to represent a zone of zoological life during its deposition, each stage indicating the introduction and the subsequent disappearance, as far as this district is concerned, of some of the peculiar genera and species which it encloses. This will be again referred to when speaking of the organic contents of the beds.

In most of the sections in the West of England, excepting those south of Bath, and in Gloucestershire, the quarries

are all worked for the marlstone at their base, which is in each case on the same geological horizon ; but when the following sections are compared with that at Strawberry Bank, the Upper Lias beds above will present considerable variations, and many of the beds often found to be entirely absent.

OTHER SECTIONS NEAR ILMINSTER.

Similar sections to that given at Strawberry Bank, have at different times been opened up and again closed. The one now in work which most nearly resembles it is at Earn Hill, on the south side, immediately overlooking the village of Donyatt. This is only worked for the purposes of the farm, and very little fresh ground is opened up, in consequence of which but few organic remains are obtained from it. From this to the east, the marlstone and Upper Lias have been denuded down to the micaceous brick clay of zone 1 *b*, found at Cross, between Ilminster and Chard. On ascending the hill to the east from this point, the former beds are again found on the south side of the hill, between Pretwood and Moolham, giving the following section :—

SECTION OF MIDDLE AND UPPER LIAS AT MOOLHAM.

<i>Middle Lias.</i> —	Marlstone	eight or nine	ft.	in.
	beds	.. ..	12	0
	Grayish clay	.. ..		6
	Stone	.. ..		3
	Gray clay	.. ..		6
<i>Upper Lias.</i> —	Various thin layers of stone and clay, with the characteristic cephalopoda of the Upper Lias as at Ilminster			
		.. ..	5	0

The noticeable variations in this section, when compared with that at Ilminster, from which it is only a mile distant,

are, that the saurian and fish zone *B*, and the leptæna beds *A*, are entirely absent. The marlstone is also thicker,—indeed it attains a greater thickness in this quarry than in any other with which we are acquainted. In former years the Moolham stone was largely worked, and the chief supply is still derived from thence. In all other districts the shelly and indurated character of the stone prevents its being readily dressed, which from its softer texture at this place can be done, and it generally yields a very durable building material. The upper bed of the Middle Lias of this section has afforded the finest examples of *Rhynchonella serrata*, *R. tetrahedra* and *Terebratula sub-puncata*, and it also contains sponges and claws of crustacea.

Along the line of road from this section to Kingstone, a distance of half a mile, are several other quarries in which all the beds of the Upper Lias have been denuded, and the marlstone comes at once to the surface. The last section in this range, before the beds pass under the inferior oolite, is at the above village. In this the saurian zone and the leptæna beds are again present, but the former is only represented by a few very flattened nodules, in which no organisms have been found, some of the nodules not being larger than a crown piece. From the absence of this bed at Moolham, and its insignificance at Kingstone, it is shown that it had been denuded before the deposition of the cephalopoda beds of the Upper Lias above.

About half a mile north of the Kingstone section, in the range in which the Strawberry Bank quarry is situated, are two others, one in a large field south of the Whitelackinton road, and another in an adjoining field facing the Long Ponds. In the former all the zones are again present; the marlstone is nine feet thick; the leptæna beds are thinner than at Ilminster, and not so fossiliferous. The saurian bed

is here composed of a stone of a denser character, from which cause insects and organisms of delicate structure are seldom preserved in it. The upper cephalopoda beds, although only a mile from Strawberry Bank, are reduced to three feet, but thicken again at the Long Ponds, where the beds occupy a line of faults, on the opposite side of which, the inferior oolite is present.

In the Puckington range, north of Ilminster, there are several good sections, one above the village of Stocklinch, and another at Atherstone. The upper cephalopoda beds are partly exposed in the roadway leading to the village of Shepton Beauchamp. In the village below, the saurian and the leptæna beds are present, but much darker, the latter assuming a deep blue colour. The upper members are thicker here than at any other place in this district; they have not only suffered less from denudation, but indicate, from the increased thickness of the beds, a deposition in a deeper sea. At Hurcot, and at Seavington, within a short distance, there are other sections, in which the saurian bed is again absent.

Until lately we supposed there was an entire absence of the leptæna and saurian zones in every other locality between Shepton, and their equivalents in Gloucestershire, but we have since observed them in one place only, at Marston, beyond Yeovil.

SECTIONS AT SOUTH PETHERTON AND
STOKE SUB-HAMBDON.

In crossing the fields from Shepton to South Petherton, an old working of the higher beds of the upper cephalopoda zone is exposed in a small field near the former village, where they are capped by the sands to the depth of four feet. From the weathered surface of the Upper Lias at this place, were obtained two of the corals so rare in the

lias, viz :—the *Trochocyathus Moorei*, Milne Edwards, and *Trochocyathus primus*, Milne Edwards.* From thence to South Petherton, these beds are everywhere covered by the sands. At this town the irony sands below the marlstone, belonging to zone 1 c, are well shewn at the end of North Street, in the hill descending to Martook. In a large field adjoining, the marlstone is extensively quarried for the roads, and from this section were obtained many of the Brachiopoda, figured by Mr. Davidson, from the Middle Lias. The organic remains are here especially abundant, and on the whole in better preservation than in most other localities. The beds are here again much reduced in thickness; the marlstone being but three and a half feet in thickness, and all the beds of the Upper Lias are included in three feet. At the adjoining village of Stoke-sub-Hamdon, they are again quarried for road material, and are seen to pass under the inferior oolite, their connection with which will be shewn hereafter.

On the eastern side of the Stoke-sub-Hamdon Hill, there are several quarries, in which the Middle and Upper Lias beds vary but little from those at Petherton and Stoke, but at Yeovil, and in the sections beyond that town, considerable variations are to be found in the deposits, especially in those of the Upper Lias; thus instead of the numerous thin bands of clay and stone in that zone as at Ilminster and other places, we find the following changes :—

* Since the above was written we have been fortunate enough to discover a very large series of Lower Lias Corals, amounting to about forty species, which will be described by Dr. Duncan, F.G.S., in the Palæontographical Society's Proceedings for 1867.

SECTIONS OF MIDDLE AND UPPER LIAS NEAR YEOVIL.

	ft.	in.
1 <i>Marlstone</i>	5	0
2 <i>Upper Lias</i> .—"Ingotton," a blue marl	10	0
Yellow brick clay	4	0

The Marlstone of the above section contains all the usual organic remains of that zone, but they are very rare in the marls and clays of the Upper Lias above.

SECTION IN "HOME GROUND QUARRY," COMPTON.

1 <i>Marlstone</i> .—Thin bands about ..	6	0
2 <i>Upper Lias</i> .—Greenish mottled clay		9
Stone		8
Thin bands of clay and stone ..	1	2
3 <i>Inferior Oolite</i> .—Dark clay with oolitic grains		2
Mottled brown clay	2	0

The Upper Lias contains *Ammonites Walcottii* and other shells characteristic of that formation; the upper surface of the highest bed was much eroded before the deposition of the oolitic bed above, a circumstance observable wherever the junction of the Upper Lias with the sands is exposed. In the section under notice, the organic remains are left standing out sharply from the bed, and in it are to be found a most interesting series of shells hitherto found in no other section of Upper Lias in this county. Unfortunately this quarry is not worked. We have visited it occasionally with the hope of enlarging our series of organisms from it, but only to be disappointed. The bed No. 3, almost passes into a clay ironstone, and those above are also ferruginous.

SECTION AT TRENT.

Within half a mile of the last section we have again the following remarkable change in the character of the beds:—

	ft.	in.
1 <i>Middle Lias</i> —Firestone,—bottom bed	1	2
2 <i>Upper Lias</i> .—Grey clay		6
Irony stone		3
Gray micaceous clay		3
Rotton stone,—several beds very irony-looking	2	0
Building stone		4
Gray clay		9
Gray water-worn stone		9
Gray clay		6
Building stone		10
Rotton stone, very irony		9
Indurated irony sands	1	0
3 <i>Inferior Oolite</i> .—Micaceous sands, with occasional bands and nodules of ironstone	8	0

The firestone in this section is the only bed of marlstone present, and shews when compared with the Middle Lias at Compton, that within so short a distance the thickness has been reduced from six to little more than one foot, whilst there has been a corresponding thickening of the Upper Lias. The micaceous sands represent the lower beds of the inferior oolite.

In none of the sections given east of that at Shepton Beauchamp, can any of the clays above the marlstone be recognized as the equivalent of the Ilminster leptæna zone, and the saurian and fish bed over an area of 14 miles is entirely wanting. Whilst proceeding from the Trent section just given, to one overlooking the village of Rimpton, near Sherborne, we were therefore surprised to see some piles of stone intended for the repairs of a bye road, which in the distance we at once recognised as our old friend the

saurian zone. Our expectations were raised to the highest pitch by the promising character of the large rounded nodules we were approaching, each of which in imagination we supposed might contain either a *Pachychormus*, a *Lepidotus*, a *Cuttle Fish*, or it might be even an *Ichthyosaurus*, or a *Teleosaurus*, but disappointment awaited us, for notwithstanding the extreme richness of this bed in the Ilminster district, and also in Gloucestershire, we were unable to find any organic remains, though subsequently on another visit to the spot we found scattered scales of *lepidotus*, and *leptolepi*, both in the fish bed and the surrounding clay.

SECTION AT RIMPTON.

	ft.	in.
1 <i>Middle Lias</i> .—Marlstone	2	0
2 <i>Upper Lias</i> .— <i>A.</i> <i>Leptæna</i> clays ..		5
<i>B b</i> Saurian Zone—flat bed ..		3
Ditto in large irregular septarian nodules ..		10
<i>c</i> Clay	2	6
<i>C</i> <i>Upper Cephalopoda Beds</i> .—Thin stone, irregular		4
Clay		5
Stone		1½
Several rubbly beds with <i>A.</i> <i>Walcottii. A. serpentinus</i> , &c.,	1	6

The last section we shall give in this district is found in the adjoining village, about a mile from the above.

SECTION AT SANDFORD.

1 <i>Middle Lias</i> .—Irony sands below the marlstone	15	0
Marlstone,—several beds ..	2	0
Ditto		2½

			ft.	in.
Marlstone	..	..	7	$\frac{1}{2}$
Ditto	..	..	4	
Ditto irony stone	..	..	10	
Irony indurated clay	..	..	2	$\frac{1}{2}$
2 <i>Upper Lias</i> .—Yellow sand with <i>Lep-</i>				
				<i>tæna Moorei</i> and <i>L. Bouchardii</i>
			2	$\frac{1}{2}$
<i>B a</i> Clay of saurian zone,	..		7	
Ditto ditto	..		10	
<i>b</i> Saurian and fish bed	..		8	
<i>c</i> Upper clays of ditto	..	1	8	

In no instance have the leptæna and the saurian zones been noticed between the latter sections, and those which occur in Gloucestershire, and the greater thickness of the saurian bed and the larger size of the nodules, reminded us of its character as seen in the quarries of Dumbleton, Stanley, &c., in that county, to which we shall presently refer.

OOOLITIC SECTIONS.—Before finally closing the physical description of the Middle and Upper Lias of this part of the county, it will be desirable to point out, as far as practicable, the passage of these formations into the inferior oolite. Until lately the yellow micaceous sands above the Upper Lias were classified and mapped as the basement of the oolitic series, but the discovery that several species of ammonites have lived on from the former into the latter period, has induced the removal of the sands from their original position, and their classification with the Lias. We have never been able to recognize the necessity for this change. Not only have we in the two horizons as distinct a fauna in its general facies as can be found with any other formations, but we have, wherever the junction of the sands with the Upper Lias is observed, a most marked

and permanent lithological distinction in argillaceous beds crowded with ammonites, &c., capped by yellow sands, with but few evidences in their lower beds of organic life. Under the former classification, the line of separation could be drawn with the greatest nicety, but must now, in this district at least, be purely arbitrary, since in almost every locality the lower oolitic rock and the sands beneath possess special characters, are of very varying thickness indicating different conditions of the sea bottom of the period, and in the material of which the rocks are composed.

The sands are to be observed above the Upper Lias at Ilminster, Whitelackington, Shepton, Seavington, and in many other places, but their thickness is best seen in the sections at Stoke-sub-Hamdon, and Compton, near Yeovil, and also in the railway cuttings near Yeovil.

SECTION AT STOKE.

	ft.	in.
1 <i>Marlstone</i>	3	6
2 <i>Upper Lias</i>	3	0
3 <i>Inferior Oolite</i> .—Yellow "Brim Sands," with occasional concretionary boulders of sandstone	80	0
Bottom Bed—a hard nodular bed, not worked	1	4
Gray Bed	2	0
Ditto	2	6
Ditto	2	0
Ditto	1	8
The "Yellow Beds," closely bedded varying from 2ft. to 1ft. 6in. thick	50	0
"Ochre"—consisting of yellow sands, sometimes passing into sandstone	30	0

The workable freestone at this spot is 58ft. thick, and almost entirely composed of comminuted shells, united by an irony cement, and is a remarkable deposit, for though attaining so considerable a thickness it does not appear to be represented in any other locality. It has been largely worked for centuries, and yields a very excellent stone of a light brown colour, due to the presence of carbonate of iron, an analysis of the deposit proving it to contain 14 per cent. of metallic iron.

The gray beds yield the best weathering stone. They are separated from the yellow beds by a band about 1ft. thick, containing many pellets of iron ore.

The lower members of the sands in the next section are not well exposed, but their thickness may be estimated in passing from the Upper Lias of Compton, up the escarpment to the "Half-way House" quarry at that place, their passage into the oolite being there quite distinct, and the difference it presents to the Stoke section, only a few miles off, will serve to show the marked contrast exhibited in the beds of this horizon, in this part of England. The cephalopoda bed of Half-way House, contains many of the organic remains of that zone in Gloucestershire, and amongst the ammonites may be mentioned *A. Parkinsoni*, *A. Sowerbyi*, *A. Moorei*, *A. Martinsii*, and *A. variabilis*.

SECTIONS SHOWING MIDDLE AND UPPER LIAS AND
INFERIOR OOLITE AT COMPTON, NEAR SHERBORNE.

1 <i>Middle Lias</i> , in "Home Ground"		ft.	in.
Quarry		6	0
2 <i>Upper Lias</i> , ditto ..		2	7
3 <i>Inferior Oolite</i> .—Brown mottled clay		2	2
Yellow sand and sandstone, leading from the former to the turnpike road, about		100	0

In the roadway towards Yeovil:—

	ft.	in.
Sandstone	6	
Sand	5	
Sandstone	5	
Yellow Sand	2	0
Irregular Blocks—sandstone ..	1	6
Yellow sand	6	0
Sandstone		11
Sandstone		10
Yellow sand	14	0
Sandstone	1	0

Continued in Quarry at Half-way House, Compton:—

"Due Stone."—Bottom bed ..	1	4
"Due Stone," used for roads ..	2	0
Stone		8
Blue oolitic bed	2	2
Cephalopoda bed		9
Stone, with numerous univalves ..	2	0
Rotten stone	1	0
Sand		1
Cephalopoda bed	1	2
Sand		1
Stone	1	6
Sand		1½
Stone		8
Sand		4½
Stone	2	0
Stone		4½
Stone		5
Stone		4½
Stone		5
Sand		1
Stone		6

					ft.	in.
Sand	..	..	..	..	6	
Stone	..	..	..	..	5	
Sand	..	..	..	..	3	
Stone	..	..	..	..	6	
Stone	..	..	..	..	3	
Sand	..	..	..	..	1	
Stone	..	..	..	..	4	
Sand	..	..	..	..	2	
Stone	..	..	..	..	5	
Sand	..	..	..	..	3	
Sand	..	..	..	..	4	
Sand	..	..	..	..	3	
Rubbly stone and sand	..	..	..	..	6	0
Vegetable soil	..	..	..	..	1	0

According to the present proposed classification of the liassic and oolitic groups, the Upper Lias would terminate with the cephalopoda beds, which in this instance are in the middle of an oolitic quarry, surrounded both above and below with beds of a similar lithological character. In other localities this terminal zone might not be recognized, so that it would be impossible to say where the one formation ended and the other commenced. We are therefore of opinion that much difficulty must arise from this arbitrary arrangement, and that it would be safer to again include all the yellow micaceous sands with the inferior oolite.

No sections of the Middle and Upper Lias are to be found between Sandford and the neighbourhood of Bath, except in the outliers of the Tor Hill, Glastonbury, and the Pennard Hills. As the beds around Bath, with one exception, to be hereafter noticed, are on a different horizon

from the marlstone and Upper Lias hitherto described, we purpose first to pass to their equivalents in Gloucestershire, and then return to some interesting sections near Bath.

SECTIONS IN GLOUCESTERSHIRE.

The Middle and Upper Lias occupy the base of the western escarpment of the Cotteswold Hills, through their whole range from Bath through Gloucestershire, but we are not aware that the marlstone zone is worked until near Wotton-under-Edge, where it has an extensive development. Still further north, near Stinchcombe, the marlstone attains a greater thickness than in any other part of the West of England with which we are acquainted. As we proceed still further north to Stanley, Dumbleton, &c., this zone is seen to be again much reduced in thickness, whilst on the contrary, the fish and saurian bed and the leptæna clays, which are altogether absent at Stinchcombe, are again present and attain a thickness not found in any other sections to the west.

SECTION AT NEWENT QUARRY NEAR STINCHCOMBE.

1 *Middle Lias*.—Indurated marls with ft. in.
irony concretions thickness unknown

Marlstone	20	0
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2 *Upper Lias*.—Clay, yellow at the base,
but gray at the top, varying
from eight inches to 2 0

Stone	2
Gray clay	8
Stone	2½
Gray clay	8
Stone	2
Gray clay	9
Stone	2

The Indurated marls in the lower portion of this section are to be seen in the cellar of a small inn, in the village, and occupy a similar position, and are lithologically identical with the irony zone previously mentioned, at the base of the marlstone at South Petherton. Shafts have been sunk in this part of the series for iron ore, but without a profitable result, and the marlstone which is the chief depository of this mineral in the North of England, like that still further west, is too poor to be worked, the average yield of metallic iron being about 17 per cent.

Organic remains are comparatively rare at Newent, both in the Middle and Upper Lias. In the former we noticed *Terebratula punctata*, *Rhynchonella tetrahedra*, *Pecten æquivalvis*, *Avicula*, *Belemnites*, *Cardinia crassissima*, &c.

SECTION AT FROCESTER HILL.

In a hurried visit we lately paid to this section we observed that the succession of the strata passing upwards from the Lower Lias at the base of the hill, was very similar to that found near Ilminster, but as no quarries are here worked, the beds are only seen in the hill side sections. Above Frocester we noticed the brick clays and the irony micaceous marls of the preceding section. The marlstone above, which is here more ferruginous, is reduced from 20 feet at Newent, to but 2 feet in thickness. Higher in the road we found a piece of the saurian and fish bed, and an *Ammonites serpentinus*, indicating the presence of the Upper Lias, while still higher were some good exposures of the yellow sands forming the cynocephala stage of Dr. Lycett.

SECTION AT STANLEY HILL.

Before the meeting of the British Association at Cheltenham, in 1856, we visited this section with the Rev. P. B. Brodie, who had often successfully worked there at the

insect bed. Up to this time none of the larger fishes or saurians had been obtained from it. My experience of this zone in the West of England enabled me to give the quarrymen special instructions respecting the kind of nodules in which those remains might be found, which resulted in their bringing to the museum at Cheltenham, during the meeting, a very fine example of *Lepidotus*, which is now in the cabinet of Dr. Wright, and which is as yet the only example of that genus found in this formation in Gloucestershire.

SECTION AT STANLEY.

		ft.	in.
1	<i>Middle Lias</i> .—Marlstone	3	6
2	<i>Upper Lias</i> .		
	Leptaena { Gray laminated clay ..	14	0
	Beds { Compact blue clay ..	2	6
	{ Blue clay	2	6
	Saurian and fish bed	1	0
	Clay and vegetable soil ..	4	0

There are several small outliers of the Middle and Upper Lias in Gloucestershire which we have been unable to visit, two of these are Robin's Wood Hill and Churchdown, near Gloucester, and Oxenton and Bredon Hills, north of Cheltenham. An account of the Churchdown beds has been given by the Rev. F. Smithe, F.G.S., in the proceedings of the Cotteswold Club, in which for the first time in Gloucestershire, he recognizes the presence of the leptaena zone with some of the characteristic shells previously found at Ilminster.

The last section to be noticed in this district is that of Dumbleton. On a visit we had the pleasure of making to E. Holland, Esq., M.P., of Dumbleton Hall, some years ago, we noticed that although the beds there would probably

not equal those of Ilminster in the variety and interest of their contents, still that the fish bed more especially would, if carefully watched, yield many fine specimens. Miss Holland was at this time commencing a collection. Subsequently at a meeting of the Cotteswold Club, at Dumbleton, we had the gratification of seeing that meanwhile that lady had been indefatigable in her researches, and had added largely to her collection from the Upper Lias. Indeed, next to my own, there is no other collection in this county more complete, or possessing specimens of greater interest from the latter formation.

SECTION AT DUMBLETON.

		ft.	in.
1	<i>Middle Lias</i> .—Marlstone	6	0
2	<i>Upper Lias</i> .—Leptæna Clays ..	15	0
	Saurian and fish bed	1	0
	Clay and vegetable soil ..	2	0

In all the sections we have hitherto given both in Somersetshire and Gloucestershire, the marlstone of zone 1, for which they are all worked, is undoubtedly on the same horizon. It is lithologically similar, and is to be at once recognized by its peculiar organic remains, many of which are special to this deposit. It will however have been observed that the beds vary very much in thickness without any apparent law to account for such diversity; in Somersetshire changing from 12 feet in thickness at Moolham, to $3\frac{1}{2}$ feet at South Petherton, a few miles off, and in Gloucestershire from 20 feet at Newent, to 6 feet at Dumbleton, and $3\frac{1}{2}$ feet at Stanley, and 2 feet at Frocester. But when the Upper Lias is considered, a still more remarkable diversity appears when the sections we have given are compared. In Somersetshire the leptæna clays of zone A, are often wanting, at times when these

are present the saurian and fish zone *B* are missing, which latter, is the case over the greater part of the area under notice. It is not improbable that the same variety might be found in the beds *below* the marlstone were there opportunities for comparison. In the Gloucestershire sections of Churchdown, Stanley, Dumbleton, &c., the saurian and fish bed is found at the top of each section, and was probably the means of preventing the total denudation of these hills down to the marlstone. All the ammonite beds above as found in the Somersetshire sections are generally wanting in Gloucestershire, but on the other hand, the leptæna clays of zone *A*, which in Somersetshire are only 18 inches, are in Gloucestershire from 15 to 18 feet thick.

BATH DISTRICT.

The sections hitherto noticed have been on the horizon of the marlstone, but around Bath, with one or two exceptions, these beds appear to be wanting, and lower members come in, which are not to be recognized in any of the former sections. The exceptional case is first given, which from the remarkable unconformability the beds is of much interest.

SECTION OF MIDDLE LIAS AND COAL AT MELLS.

A shaft has lately been sunk for coal at this place, on the property of the Rev. J. S. H. Horner. The "old men's" coal workings are visible on the surface of the ground in the immediate neighbourhood of the pit where the coal crops out, and on the south of the workings are beds of Dolomitic Conglomerate and Carboniferous Limestone. Instead of at once reaching the coal as was expected, the miners passed through a bed of clay into a rock which was quite unknown to them, specimens of which were forwarded to me for my opinion, with some of its

fossils, with the intimation that it was a dense unstratified rock. I was no less surprised than gratified to recognize in such a peculiar position my old friend the marlstone of Ilminster, and like its representative very fossiliferous. It contained many specimens of *Belemnites parillosus*, *Pholidomya ambigua*, and *Ammonites spinatus*, and a *Montlivaltia*, the only coral I have ever found in these beds. In the blue marl at the side of the pit I also obtained a specimen of Star Fish, *Ophioderma Egertoni*, many fine examples of which are obtained in the blue marls on the coast near Charmouth.

The marlstone when passed through proved to be 9 feet in thickness, and the coal was won immediately below. Had the former been sufficiently ferruginous for working it would have been a most fortunate combination for the proprietors, who are members of the Westbury Iron Company, but this was not the case. We have at this spot the marlstone resting unconformably upon the coal, and were all the intervening stratified rocks present, they would, between these two formations, have an aggregate thickness of several thousand feet.

SECTION AT UPTON CHEYNEY.

The number of nodules of ironstone around Upton induced me to suggest to J. Parker, Esq., who has always been interested in the advancement of scientific knowledge, the desirability of making some excavations for their discovery. Accordingly on that gentleman's land, a trench was dug in a pasture field on the west of the village, when about two feet under the surface what appeared to be a remarkable deposit of iron ore was reached, bed after bed apparently following one another without interruption through a length of seventy feet, and dipping at an angle

of 36 degrees into the hill. There appeared therefore a very thick deposit of iron ore at this spot, giving an average of 24 per cent. of metallic iron, with a probable continuation of it under thousands of acres in the adjoining district. The next thing was to test its exact thickness by a vertical shaft, and then we had the disappointment of finding that what appeared to be the edges of a succession of stratified beds, was in reality only a series of *steps* produced by a single bed, which had been displaced, and at some period carried down the escarpment and left in this position.

At Oak's Lane, in ascending order, the following section is present :—

	ft.	in.
<i>Middle Lias</i> .—Blue micaceous stone ..	1	4
Gray marls	8	0
Shelly marlstone		4
Stone with blue interior		7
Mottled gray and red marls with numerous small iron nodules ..	40	0
Band of ironstone		3
Mottled gray and red marls ..	54	0
Pecten bed		1½
Red marl		1
Pecten bed		1
Red and gray marls	7	0
Blue pecten bed		4½
Iron nodules		6
Red and gray marls	7	0
Shaley pecten bed		4
Ironstone yielding 24 per cent. ..	1	8
Gray marls	33	0
Marlstone ?	1	0

<i>Upper Lias</i> .—About twelve beds with	ft.	in.
numerous <i>Ammonites serpentinus</i> ,	12	0
<i>Inferior Oolite</i> .—Sands and rock	..	unknown
<i>Fuller's Earth</i> .—	..	ditto

Through the whole of the series under the Upper Lias organic remains are very rare; only *Gryphæa gigantea*, *Ammonites maculatus*, *Belemnite*, *Pecten*, and two or three casts of bivalves were observed.

Sections at Charlcombe and in the Limply Stoke Valley, show beds which are again on a different horizon to those previously mentioned.

Opposite Dundas the following order was exhibited :—

Blue micaceous marl with thin nodules of		
ironstone	..	20 0
Brownish marlstone with <i>A. maculatus</i> ,		
<i>Unicardium cardioides</i> , <i>Lingula Beanti</i> ,		
abundant, Crustacea and saurian teeth	1	0
Blue clay	..	3 0
<i>Upper Lias</i> .—A single bed with <i>A. Wal-</i>		
<i>cottii</i> , <i>A. Serpentinus</i> , &c.	..	1 0
Gray clay	..	2 0
<i>Inferior Oolite</i> .—sands of	..	20 0

In a paper we have prepared for the Geological Society of London, on the "Abnormal Conditions of Secondary Deposits when connected with the Somersetshire and South Wales Coal Basins," we have shown that south of Bath there is a very remarkable thinning out of the secondary beds as compared with their equivalents beyond the Mendips, and that whilst in the latter case they would attain an aggregate thickness of 3320 feet, in the neighbourhood of Radstock, Paulton, and Camerton, they are reduced to 169 feet, which we believe arises from the Mendip Hills having been a land area during a great part

of this lengthened period, thereby serving to prevent the incursion of the secondary seas within its borders. Thus at Munger near Paulton, the 800 feet of Somersetshire Lower Lias is represented by only three beds of 18 inches, interposed between the Rhætic series and the Middle Lias, all of which are present in the same quarry. The following section at Camerton is one of much interest from its affording thin representatives of all the beds, from the Rhætic series upwards to the inferior oolite and fuller's earth, and as shewing also the relative positions of the Middle and Upper Lias in this district.

SECTION AT CAMERTON.

	ft.	in.
<i>Rhætic White Lias.</i> —A series of 21 cream coloured closely bedded limestones	8	0
<i>Lower Lias.</i> —Thirteen beds of the <i>Lima</i> series	4	10½
<i>Spirifera Bank</i> , with many <i>Spirifera</i> <i>Walcottii</i>		6
Foraminifera zone.—Blue clay ..	8	0
Blue limestone with fish scales, &c.		6
Brownish clay	2	0
Nodular bed with <i>A. raricostatus</i>		3
<i>Middle Lias.</i> —Irregular beds of marlstone	2	0
<i>Upper Lias.</i> —Unopened beds in escarp- ment towards Tunley, about ..	50	0
<i>Inferior Oolite</i> in roadway about ..	3	0

The same order of succession is seen in the Radstock quarries, but the marlstone of the Middle Lias attains a thickness of fifteen feet. In this district it has an iron shot or oolitic structure, and is usually very fossiliferous, the prevailing shells being *Gryphæa Maccullochii*, *Pholadomya ambigua*, and many *Brachiopoda*. There appears to

be little doubt the marlstone of this district occupies a different horizon from that at Ilminster, which is unquestionably the uppermost in the Middle Lias series, whilst probably the former is at the very base of the series and represent the passage beds of the Lower into the Middle Lias.

The Middle and Upper Lias as at Ilminster and in Gloucestershire occur under precisely similar circumstances at Cury, May, and Fontaine-etoupe-four, in Normandy, and have been ably described with many of their organic contents by Dr. Eugene Deslongchamps. The same unconformability occurs in the sections he has noticed, in some of them the Middle and Upper Lias rest immediately upon the upturned edges of silurian strata. In his "Memoir sur la Couche a Leptæna du Lias," a series of remains are described which had not been observed in this country, and clearly form an horizon of Middle Lias that had not yet been recognized. Whilst on a visit to the Rev. J. S. H. Horner, of Mells, we were examining the very varied and interesting geology of that district, and on passing one of the carboniferous limestone combs, near Whatley, almost vertical limestones were exposed for about eleven yards, on the edges of which was a thin deposit of gray marl with drifted oolitic material above, giving the following section :—

SECTION AT WHATLEY.

	ft.	in.
1 <i>Inferior Oolite</i> .—Irony clay with sulphate of barytes and blocks of inferior oolite	4	0
2 <i>Middle Lias</i> .—Gray laminated marl ..	1	2
Gray marl, very fossiliferous ..		10
3 <i>Carboniferous Limestone</i> , upturned edges of	3	0

The Middle Lias of the Radstock district and the deposit at Whatley represent the lowest Middle Lias beds. On removing to my residence a quantity of the marl from the latter place, species after species were found which were new to this country, and in this thin and abnormal deposit I had the pleasure of recognizing an horizon of Middle Lias, which hitherto had only been found on the ragged edges of the Normandy silurian strata. This reveals the interesting fact that when this zone was being deposited, the carboniferous limestone formed the floor of the liassic sea, and that at this time the silurian rocks of Normandy had been uplifted and were on the same level, and that both were receiving on their surfaces and in their cracks and fissures organic remains of the same age.

The fossiliferous marl at Whatley is in great part composed of dismembered *Pentacrinites*, but the same thin deposit has yielded sixty-four species of organic remains; of these the most varied are the *Brachiopoda*, of which there are present the genera, *Argyrops*, *Crania*, *Leptæna*, *Rhynchonella*, *Spiriferina*, *Suesseia*, *Terebratulæ*, *Terebratulina*, and *Thecidium*. The *Leptæna rostrata* Desl. which occurs here is found also at Munger.

The following species occur at Whatley :—

Ichthyosaurus, teeth of	<i>Avicula</i> sp.
Hybodus, ditto	<i>Gryphæa depressa</i> , Phil.
Sphenonchus	„ <i>incurva</i> , Sow.
Rais	<i>Lima Deslongchampsii</i> , Stol.
Nautilus	„ <i>punctata</i>
Belemnites acutus	„ <i>Haueri</i> , Stol.
„ <i>clavatus</i>	„ sp.
Chiton	<i>Ostrea ocreta</i> , Desl.
Turbo	„ <i>monoptera</i> , Desl.
Trochus	<i>Pecten textorius</i>
Astarte	„ sp.
<i>Avicula inæquivalvis</i> , Sow.	„ sp.

<i>Plicatula spinosa</i> , Sow.	<i>Thecideum granulosum</i> , Moore
„ sp.	„ Moorei, Dav.
<i>Argyope Suessii</i> , Desl.	„ rusticum, Moore
„ liasiana, Desl.	<i>Neuropora Haimii</i> , Desl.
„ Perieri, Desl.	„ sp.
<i>Crania</i>	<i>Berenicea Archiaci</i> , Haim
<i>Leptæna rostrata</i> , Desl.	<i>Serpula</i> sp.
„ Bouchardii, Dav.	„ sp.
„ Davidsoni, Desl.	<i>Apiocrinus amalthei</i> , Quenst.
<i>Rhynchonella furcillata</i>	<i>Cotylederma fistulosa</i> , Desl.
„ egretta, Desl.	„ vasculum, Desl.
„ fallax, Desl.	<i>Plicatocrinus Mayalis</i> , Desl.
<i>Spiriferina Walcottii</i> , Sow.	<i>Cidaris, Edwardsii</i>
„ oxygona, Desl.	„ sp. spines of
„ Deslongchampsii, Dav.	„ sp. ditto
<i>Suessia imbricata</i> , Desl.	<i>Pentacrinus tuberculatus</i> , Mill
<i>Terebratula punctata</i> , Sow.	„ robustus, Wright
<i>Terebratulina Deslongchampsii</i> , Dav.	„ Bronnii, Quenst.
<i>Thecideum Bouchardii</i> , Dav.	„ moniliformis, Quenst.
	<i>Ophioderma</i> , joints of

Within two miles of Whatley, the Middle Lias is again present under very peculiar conditions at the hamlet of Holwell. On the carboniferous limestone at this place, and extending as far as Cranmore, are deposits of conglomerate of Middle Lias age, almost undistinguishable lithologically from the older rocks, but containing organic remains, many of which have only been found in the Hierlatz mountains and at Fountaine-etoupe-four. Not only does the Middle Lias conglomerate fringe the ancient coast line at this point, but it has been carried down for great depths into the veins and fissures of the limestone, the infillings in one of the quarries occupying nearly a third the length of the section, one of the liassic veins being fifteen feet in breadth. From the side of this, about fifty feet from the surface, was extracted a block but a few inches square, containing fourteen species of gasteropoda of Middle Lias age, and all of them new to this country.

LIASSIC REMAINS AT HOLWELL.

<i>Trochus turritus</i> , Moore	<i>Lima Dealongchampsii</i> , Stol.
„ <i>labellatum</i> , Stol.	„ <i>scrobiculata</i> , Stol.
„ <i>gradatus</i> , Moore	„ <i>sp.</i>
<i>Phasianella turbinata</i> , Stol.	<i>Pecten Rollei</i> , Stol.
<i>Amberleya Alpinus</i> , Stol.	„ <i>verticillus</i> , Stol.
<i>Delphinula reflexilabrum</i> , Horne.	„ <i>palosus</i> , Stol.
„ <i>nuda</i> , Moore	<i>Gryphæa incurva</i> , Sow.
<i>Neritopsis lævis</i> , Stol.	<i>Spirifera Walcottii</i> , Sow.
<i>Nerinea Horneri</i> , Moore	„ <i>Munsteri</i> , Dav.
<i>Pleurotomaria Buchi</i> , Deal.	<i>Terebratula punctata</i> , Sow.
<i>Solarium lunatum</i> , Moore	„ <i>Waterhousei</i> , Dav.
<i>Turbo nodulo-carina</i> , Moore	<i>Rhynchonella furcillata</i> , Theod.
„ <i>Maris</i> , Moore	„ <i>concinna</i> , Dav.
„ <i>angulata</i> , Moore	„ <i>variabilis</i> , Schlot.
<i>Avicula nuda</i> , Moore	Crustacea, claws of
<i>Opis triangularis</i> , Moore	<i>Pentacrinites tuberculatus</i> , Mill.

Holwell is celebrated for the very beautiful series of *Rhætic vertebrata* we obtained from another of its fissures.

From the foregoing description it will be seen that a remarkable variety is presented, not only in the South West of England, but wherever the Middle and Upper Lias are found. This is obvious when the beds are in the same district, and often when they are on the same horizon. When the Ilminster and the Bath districts are compared it may be accounted for from equivalent beds not being exposed.

The most complete vertical section that has been given is that by Mr. Day, in his description of the coast section in Dorsetshire. He there gives the thickness of the Middle Lias at Golden Cap at 350 feet, and the Upper Lias (including the sands) at 210; but it appears from his account that although the general features of his section may be recognized that they even there present variety. Although only seventeen miles from Ilminster, it is somewhat difficult to correlate the two series.

The following sections are from Mr. Day's paper :—

MIDDLE LIAS &c., AT WESTHAY CLIFF, DORSET.

Lower Lias and sandstone with *Ammonites raricostatus*

<i>Middle Lias.</i>	feet.
1 Blue marl	30 to 40
2 Gray lias stone	12 „ 18
3 Gray marl	16 „ 22
4 Gray shale and marl	
5 The belemnite stone	
6 Gray marl	15
7 The green ammonite beds	18
8 Gray marl with ferruginous seams	73
9 "The Three Tiers."—Sandstone and marl	20

At Golden Cap the following continue above the Three Tiers :—

10 Marlstone concretions with shells	4
11 Gray micaceous marls with sandstones	160
12 Shell bed	
13 Star fish bed	
14 Gray and brown sands with nodules	70

and at Down Cliff

15 The <i>Ammonites margaritatus</i> bed	1
16 Blue marl	6½
17 Light brown sands	60
18 Blocks of indurated sand	8
19 Clay	18

Upper Lias.

20 Band of stone	
21 Upper Lias clays	70
22 Yellow sands	140

A comparison of the above section with that given from Ilminster, will show how little agreement there appears between them. The leptana clays and the saurian zone are wanting near Lyme, and the only satisfactory conclusion we can arrive at is, that the marlstone of the Ilminster section probably represent the *Ammonites spinatus* and *A. margaritatus*, 15 and 16 of Mr. Day's sections, and the brick clays at Ilminster, the brown sands below, in which as at Lyme the *A. margaritatus* also occurs.

The ocean in which the Middle Lias was deposited does not appear to have extended much beyond Ilminster to the west. Its boundary in an opposite direction, it is impossible to define, from the beds being covered up by later deposits, but that its area must have been great is arrived at by the fact, that its western boundary is continuous almost uninterruptedly from the Yorkshire coast through the midland counties to Bath and Ilminster, and thence by way of Lyme crosses over into France and Germany.

DISTRIBUTION OF ORGANIC REMAINS.

When the two groups of the Middle and Upper Lias in the districts we have noticed are compared, a change is found to occur in the lithological character of the deposits; the former being arenaceous and irony, the latter chiefly argillaceous. To this may to some extent be attributed the presence of a different fauna in the two series of deposits. In the Ilminster district the Middle Lias is crowded with fossils, but very few of the species have passed from it into the Upper Lias. One of these is the *Spirifer rostratus*, with which the lower beds are crowded, and yet we only know of one solitary specimen which lived on into the higher beds. Several species of foraminifera have also done so, but these little shells are generally known to have a very extended range.

MIDDLE LIAS OF THE
CAMERTON AND RADSTOCK DISTRICTS.

The beds at the base of the series, and where they rest immediately upon the Lower Lias have yielded the following species:—

<i>Cristellaria rotula</i> , Lam.	<i>Plicatula spinosa</i> , Sow.
„ <i>cultrata</i> , Mont.	„ <i>sarcinula</i> , Goldf.
<i>Dentalina obliqua</i> , Linn.	<i>Arca elongata</i> , Quenst.
<i>Nodosaria radícula</i> , Linn.	„ <i>sp.</i>
<i>Cidaris</i> , sp.	<i>Astarte Oppeli</i> , Moore
<i>Pentacrinus tuberculatus</i> , Mill.	„ <i>Camertonensis</i> , Moore
<i>Serpula socialis</i> , Goldf.	<i>Modiola</i> , sp.
„ <i>strangulata</i> , Terq.	<i>Myacites</i> , sp.
„ <i>capitata</i> , Phil.	<i>Nucula</i> , sp.
<i>Entomostraca</i> , sp.	<i>Pholadomya ambigua</i> , Sow.
<i>Crania</i> , sp.	<i>Opis clathrata</i> , Stol.
<i>Leptæna Bouchardii</i> , Dav.	<i>Cerithium granuliferum</i> , Stol.
„ <i>rostrata</i> , Dea.	„ <i>Camertonensis</i> , Moore
<i>Rhynchonella furcillata</i> , Thodor.	<i>Dentalium gracile</i> , Moore.
„ <i>rimosa</i> , Buch.	„ <i>liassicum</i> , Moore
„ <i>variabilis</i> , Scloth.	„ <i>trigonalis</i> , Moore
<i>Spirifera rostratus</i> , Schlot.	<i>Pitonillus linctus</i> , Moore
„ <i>verrucosus</i> , Buch.	„ <i>turbinatus</i> , Moore
<i>Trebratula numismalis</i> , Lam.	<i>Pleurotomaria anglica</i> , Sow.
„ <i>punctata</i> , Sow.	„ <i>expansa</i> , Sow.
„ <i>Waterhousei</i> , Dav.	<i>Solarium</i> sp.
<i>Avicula inequivalvis</i> , Sow.	<i>Scalaria</i> (<i>Turritella</i>) <i>liassica</i>
„ <i>sp.</i>	<i>Trochus læviusculus</i> , Stol.
<i>Crenatula ventricosa</i> , Sow.	„ <i>Schubleri</i> , Quenst.
<i>Gryphæa cymbium</i> , Lam.	„ <i>morpheus</i> , Stol.
„ <i>depressa</i> , Phil.	„ <i>torosus</i> , Stol.
„ <i>incurva</i> , Sow.	„ <i>latilabrus</i> , Stol.
„ <i>Maccullochii</i> , Sow.	„ <i>concinus</i> , Moore
<i>Inoceramus dubius</i> ? Sow.	„ <i>mammillaris</i> , Moore
<i>Lima punctata</i> , Sow.	<i>Turbo bifurcatus</i> , Moore
„ <i>antiquata</i> , Sow.	„ <i>bullatus</i> , Moore
<i>Pecten textorius</i> , Schloth.	„ <i>polita</i> , Moore
„ <i>dentatus</i> , Sow.	<i>Turritella anomala</i> , Moore
„ <i>cingulatus</i> , Goldf.	<i>Ammonites hybrida</i>
„ <i>sp.</i>	„ <i>Maugenesti</i> , D'Orb.
<i>Pinna</i>	

Ammonites lineatus, Quenst.

„ *maculatus*, Y. & B.

„ *Boblayei*, D'Orb.

„ *cornucopias*

„ *obtusius*, Sow.

„ *armatus*, Sow.

Belemnites acutus, Mill.

„ *compressus*, Voltz.

Nautilus semistriatus, D'Orb.

Ichthyosaurus, tooth of

Hybodus, teeth of

From the scarcity of sections below the marlstone, we have only had the opportunity of collecting organic remains in the brick marls at Cross, near Ilminster. They are only found in ferruginous casts or impressions, and owing to the friable nature of the matrix are difficult to preserve, and for the same reason the specific forms are at times difficult to determine. The *Ammonites margaritatus* is specially abundant, and with it are several examples of *A. serpentinus*, which pass into the ammonite beds of the Upper Lias. There are some crushed impressions which appear to be the detached beaks of ammonites. Amongst the brachiopoda the *Rhynchonella furcillata* is common, and there are the casts of the *Argyope Suessia* of Deslongchamps, the interest of which, though in our hands for many years, we did not recognize, and also the casts of *Thecidium*.

Hemepedina Jardinii, Wright

Pentacrinites

Argyope Suessia, Desl.

Crania sp.

Rhynchonella concinna, Sow.

„ *furcillata*, Theodor.

„ *tetrahedra*, Sow.

Spirifera

Terebratula punctata, Sow.

Thecidium—casts

Avicula inequivalvis, Sow.

„ *species*

Inoceramus

Lima acuticosta, Goldf.

Pecten, 5 species

Plicatula spinosa, Sow.

Leda elongata, Sow.

Venus pumila, Goldf.

Astarte

Cardium multicostatum, Goldf.

Modiola

Nucula complanata, Phillips

„ *inflexa*, Roem.

„ *truncata*, Quenst.

„ *variabilis*, Quenst.

Ammonites margaritatus, Montf.

„ *serpentinus*, Rein.

„ *sp.*

„ *sp.*

„ *beaks of*

Belemnites, 2 sp. casts

Nautilus

1 *d.* THE MARLSTONE.—In passing upwards to this horizon we come to the stone for which all the quarries are worked, both in the Ilminster district and in Gloucestershire. In the former especially, the shells stand out of the rotten sides or fissured edges of the rock in the greatest profusion. Very few vertebrate remains are present, these being rarely represented by fish teeth and an occasional vertebra of *Ichthyosaurus*, of an undescribed species. The ammonites of this zone are about eleven species in number, the *A. margaritatus* and *A. spinatus* being the most abundant, and often in fine preservation, whilst *A. Bechei*, *A. Engelhardtii*, *A. fimbriatus* and others are rare. The two former ammonites have been supposed to represent distinct horizons in the Middle Lias, but in this district they occur together, and in about the same numbers. The *A. Bechei* passes upwards from the lower beds into the marlstone, and *A. fimbriatus*, *A. variabilis*, and *A. radians*, are common to the Middle and Upper Lias, so that we cannot rely upon the precise range of these cephalopoda in our determination of geological horizons, which can be proved to apply equally to others from the lower beds. Myriads of the *Belemnites paxillosus*, with *B. compressus* and *B. breviformis*, often showing their chambered phragmacones, are present, a hand specimen of the marlstone often containing as many as twenty examples. The most characteristic shells in the Ilminster district are the *Pecten æquivalvis*, and the *Gryphæa gigantea*, which abound, and are usually very fine.

The *Brachiopoda* of the district are unequalled, and yield a greater number of genera and specific forms than any other; many of those in my collection being the typical species figured by my friend T. Davidson, Esq., F.R.S., most of whose life has been devoted to the working out the

history of this interesting group of shells. The *Terebratula cornuta* is the most abundant and presents much variety in form. Next to it would be the *Spirifera rostratus*. The soft character of the matrix occasionally allows the spire of this shell, and also the loop of *Terebratula*, to be exposed. The *Terebratula sub-punctata* and the *Rhynchonella serrata* are only found at Moolham. The Thecididæ, another group of brachiopoda are very rare in the marlstone, but attached to the plaited exterior of a specimen of the last-named shell, there are seventeen specimens of the only species found in it, viz :— *T. Bouchardii*, *T. triangularis*, and *T. Moorei*, Dav. The brachiopoda, including new species found at Whatley, number about thirty species from the Middle Lias series.

The *Gasteropoda* of the marlstone are also an important and interesting class, and have yielded many new species which will hereafter be figured and described. Some of the *Pleurotomariæ* attain considerable size, one specimen in my collection being 2ft. in circumference by 7½ in. in height. The *Crustacea* excepting *Entomostraca* are rare, being represented by the *Eryma Greppini* and the claws of *E. elegans* from Moolham. *Echinodermata* are also rare, as hitherto only four genera have been recognized belonging to the *Hemipedina Jardinii*, Wright, *Rabdocideris Morlandina*, Cotteau, and dismembered joints of *Pentacrinites* and *Ophioderma*.

From the marlstone at Moolham there has been obtained two species of *Amorphozoa* belonging to the genus *Cupulosporgia*, De Frome, and although I have lately discovered a large series of Corals in the Lower Lias this class is to the present time represented by a single specimen of *Montlivaltia*, from the Middle Lias of Mells.

FORAMINIFERA.—Although this very beautiful class of

microscopic shells, has been detected by Mr. J. G. Borneman in the Middle Lias of Gottingen, their presence in the English Middle Lias is now first recognized. On an examination of the exposed or friable surfaces of the marlstone it may be seen that to some extent it is composed of comminuted shells, and other organic bodies, amongst which the Foraminifera may be found not unfrequently. Nothing can well exceed the great beauty and variety of form presented by these delicate little shells, and through the kindness of my friend H. B. Brady, Esq., F.G.S., who is working at this class for publication in the Palæontographical Society, I have been furnished with drawings and descriptions of all the species in my collection from the Somersetshire Middle and Upper Lias. In the whole the marlstone yields nine genera and twenty-seven species of which not less than twenty-two species have passed into it from the Foraminifera zone of the Lower Lias of the Camerton section. The genera most abundant are *Cristellaria*, *Nodosaria*, *Dentalina*, and *Planularia*, many of the others being exceedingly rare. The genus *Polymorphina* has been found only in the marlstone of this district. All the species are given below.

Many other remains might be noticed from the horizons of the Middle Lias. Its Palæontological importance may be recognized from the fact that my collection contains a series of 183 species from the Ilminster marlstone alone, besides uncertain forms and casts of others which would still add to the list.

1 d.—SPECIES FROM THE MARLSTONE OF ILMINSTER.

Plantæ, remains of	Cupulospongia, sp. De Frome
Algae	„ sp.
Onychites contractus, Quenst.	Cristellaria acutaureolaris,
„ numismalis, Quenst.	F. & M.

- Cristellaria cultrata*, Montf.
 „ *rotula*, Lam.
 „ *rhomboidea*, Cyjzek.
Dentalina communis, D'Orb.
 „ *obliqua*, Linn.
 „ *pauperata*, D'Orb.
 „ *plebeia*, Reuss.
Fronicularia striatula, Reuss.
Lingulina carinata, D'Orb.
 „ *tenera*, Borne.
Marginulina eusia, Reuss.
 „ *glabra*, D'Orb.
 „ *raphanus*, Linn.
Nodosaria hispida, D'Orb.
 „ *paucicostata*, Roem.
 „ *humilis*, Roem.
 „ *raphanus*, Linn.
 „ *radicula*, Linn.
Polymorphina compressa, D'Orb.
 „ *lactea*, W. & J.
Planularia Bronni, Roem.
 „ *longa*, Cornuel
 „ *pauperata*, P. & J.
 „ *reticulata*, Cornuel
Vaginulina legumen, Linn.
 „ *lovigata*, Roem.
Hemipedina Jardinii, Wright
Rabdocideras Morlandini,
 Cotteaux
Ophioderma, sp.
Pentacrinus basaltiformis, Mill
 „ *Bronni*, Quenst
Serpula capitata, Phil.
 „ *socialis*, Goldf.
 „ sp.
Entomostraca, sp.
Eryma Greppini ? Oppel.
 „ *elegans*, Oppel.
Bryozoa, sp.
Crania, sp.
Lingula, sp.
- Rhynchonella acuta*, Sow.
 „ *furcillata*, Theod.
 „ *serrata*, Sow.
 „ *tetrahedra*, Sow.
 „ *sub-tetrahedra*,
 Dav.
 „ *sub-concinna*, Dav.
 „ *variabilis*, Schl.
Spirifera rostratus, Schl.
 „ *Munsterii*, Dav.
Terebratula corunta, Sow.
 „ *quadrifida*, Lam.
 „ *Edwardii*, Dav.
 „ *resupinata*, Sow.
 „ *Moorei*, Dav.
 „ *numismalis*, Lam.
 „ *punctata*, Sow.
 „ *sub-punctata*, Dav.
Thecidium Moorei, Dav.
 „ *Bouchardii*, Dav.
 „ *triangularis*, D'Orb.
Avicula cygnipes, Phil.
 „ *incoequivalvis*, Sow.
 „ *novem costae*, Brown
Anomia oxynoti, Quenst.
Gryphaea gigantea, Sow.
 „ *depressa*, Phil.
Hinnites velatus, Goldf.
 „ sp.
Lima Dealongchampsii, Stol.
 „ *punctata*, Sow.
 „ *acuticosta*, Quenst.
 „ *antiquata*, Sow.
 „ sp.
Ostrea ocreata, Desl.
 „ *monoptera*, Desl.
Pecten oequivalvis, Sow.
 „ *dendatus*, Sow.
 „ *textorius*, Schlot.
 „ *Rollei*, Stol.
 „ *cingulatus*, Goldf.

- Pecten* several sp.
Perna antiquata, Moore
Pinna Hartmanni, Ziet.
Plicatula spinosa, Sow.
 ,, *sarcinula*
Astarte sp.
Arca elongata, Quenst.
Cardinia crassissima, Stuch.
 ,, *concinna*, Stuch.
 ,, *Partschi*, Stol.
Cardita liasiana, Moore.
 ,, *multicostata*, Phil.
Cardium truncatum, Sow.
Cucullæa bilineata, Moore,
 ,, *transversa*, Moore
 ,, *Munsterii*, Goldf.
Cypriocardia cucullæata, Goldf.
 ,, *intermedia*, Moore
Hippopodium ovalis, Moore
Isocardia liassica, Moore
Modiola cuneata
 ,, *numismalis*, Oppel.
 ,, *ornata*, Moore
Myacites unioides, Goldf.
 ,, *longissimus*, Quenst.
 ,, *donaciforme*?
 ,, *sp.*, several
Opis, sp.
Myoconcha crassa? Sow.
Pholadomya ambigua, Sow.
 ,, several sp.
Solen liasinus, Oppel.
Sanguinolaria striata, Stutch
Unicardium cardioides, Phil.
 ,, *globosum*, Moore
Tellina, sp.
Actæonina Ilminsterensis, Moore
Cerithium coronatum, Moore
 ,, *gradatum*, Moore
 ,, *liassicum*, Moore
 ,, *pyramidalis*, Moore
Cerithium costulatum, Dea.
 ,, *asperulum*, Moore
Chemnitzia Hierlatzensis, Stol.
Cylindrites Whitfieldii, Moore
Dentalium giganteum, Phil.
Nerinea liassica, Moore
Phasianella turbinata, Moore
Pleurotomaria anglica, Sow.
 ,, *tuberculato-costata*,
 Munster
 ,, *heliciformis*
 ,, *costulatum*, Moore
 ,, *expansa*, Sow.
 ,, *rotelloformis*
 ,, *gigas*
Purpurina ornatissima, Moore
Solarium crenatum, Moore
 ,, *costulatum*, Moore
Trochus imbricatus, Sow.
 ,, *granuliferus*, Stol.
 ,, *lineatus*, Moore
 ,, *Pether-tonensis*, Moore
 ,, *flexicostatus*, Moore
 ,, *nodulatus*, Moore
 ,, *carinatus*, Moore
 ,, *Rutteri*, Moore
 ,, *auvernus*, Stol.
Turritella (Scalaria) liassica
Turbo Bertholeti, D'Orb
 ,, *lineatus*, Moore
 ,, *elegantissima*, Moore
 ,, *coronatus*, Moore
 ,, *inctus*, Moore
 ,, *rugifera*, Moore
 ,, *Ilminsterensis*, Moore
 ,, *Escheri*, Goldf.
 ,, *heliciformis*, Ziet.
Ammonites margaritatus, Montf.
 ,, *fimbriatus*, Sow.
 ,, *spinatus*, Brug.
 ,, *Engelhardtii*, D'Orb.

Ammonites maculatus, Y. & B.	Nautilus obesus, Sow.
„ radiana, Rein.	Belemnites compressus
„ heterophyllus, Sow.	„ breviformis, Voltz
„ valdani, D'Orb.	„ paxillosus, Schlot.
„ serpentinus, Rein.	Ichthyosaurus vertebroe, n.s.
„ Bechei, Sow.	Hybodus, teeth of
„ variabilis, D'Orb.	Lepidotus, scales
Nautilus semi-striatus D'Orb.	

THE UPPER LIAS.

With the exception of "rotten stone," which is silicified vegetable matter, almost every organism yet detected in the Middle Lias is of marine origin, but the evidence of these drifted fragments of trees shews that dry land was probably not far removed. Except from the rare but occasional admixture of terrestrial with marine remains we should have little, if any, evidence that dry land had anywhere appeared. This is not so much to be wondered at when it is considered that our vegetable soil of but a few inches thick, represents a period to be measured only by thousands of years, and how readily, should a submergence of the present land area take place, all traces of its ever having been in existence might be obliterated; but that land existed, and more especially on the margins of the seas which succeeded the Middle Lias there is abundant evidence.

Numerous and varied as was the fauna of the age we have been considering, we now arrive at the fact that with but few exceptions it ceased to exist, and a new order of things and of organic life succeeded. Life and death, through all time has been the wise provision of the Almighty for

"Where He vital breathes there must be joy"
and from every change He is

"From seeming *evil* still educing *good*,
And better thence again, and better still,
In infinite progression."

It is not only a privilege, but a work of the greatest interest to the geologist to endeavour to realize to himself the physical and other conditions under which the earth has passed, and to endeavour to interpret each succeeding page of the great book of nature, in doing which he cannot but be struck with the wonderful variety and beauty of the organic beings, which at its several epochs have had their places upon the globe, again in their turn to make room for others and disappear for ever.

Perhaps at no other place can the great stone book be thus more readily read than in the thin bands of clay and stone, which compose the few feet forming the Upper Lias of the neighbourhood of Ilminster.

On referring to the section at p. 132, the succession of the beds and their thickness are given. Insignificant as they appear, they yield to none in Palæontological interest. It was a remark of Dr. Buckland, that "almost every particle of the earth we tread on was once living." It is certainly true that the hills around Ilminster are, in great part, composed of organic remains, many of which are unequalled for the beautiful condition in which they are found. Although it may be the case, that some species pass through all the Upper Lias beds, or may be common to several of them, still, each thin layer of which they are composed has a special zoological character, and differs slightly lithologically, indicating that they were slowly deposited; and that genera and species being peculiar to such thin layers, their deposition may represent in time, in this district at least, the life of such genera or species.

We propose dividing the Upper Lias into the following stages, in ascending order, and noticing some of the beds and their organic contents more minutely, viz. :—

- A. The Leptæna Beds.
- B. The Saurian and Fish Zone.
- C. The Upper Cephalopoda Beds.

THE LEPTÆNA BEDS.—No. A, *a* to *e*, of the general section are composed of thin bands of different coloured clays, 18 inches thick in the Ilminster section, and represent the thicker clays under the saurian and fish bed in Gloucestershire. They lie immediately upon the marlstone, and are therefore the basement beds of the Upper Lias. Under favourable circumstances, when this zone is not disturbed by compression into the fissures of the marlstone, it may be divided into—

- A *a*. Zone of *Leptæna Bouchardii*, *L. Moorei*, &c.
- b* „ ditto ditto
- c* „ *Thecidium rusticum*, &c.
- d* „ *Alaria unispinosa*, and other univalves.
- e* „ *Spirifera*? *Ilminsterensis*, *Zellania liassica*, *Leptæna granulosa*.

With the termination of the marlstone and the extinction of many of its species, there appears to have been a period of rest before the new order of deposits succeeded. Immediately upon the marlstone, the first band of the leptæna clays rests. They are so denominated from the fact, that some years since we discovered in them six species of the genus *Leptæna*, which was supposed to have disappeared with the Palæozoic epoch. These consist of the *Leptæna Bouchardii*, Dav., *L. Moorei*, Dav., *L. liassina*, Bouch., *L. Davidsonii*, Desl., *L.?* *Pearcei*, Dav., and *L. granulosa*, Dav. A great hiatus still remains between the Upper Lias and the more ancient beds in which they may yet be detected. One step in this direction is advanced by finding the *L. rostrata*, Desl., in the Middle Lias at Whatley and in the Lower Lias of Munger, near Paulton.



A a. The first zone of the leptæna beds consists of a clay of a yellowish or golden tint from one to two inches thick, which adapts itself to the hollows and inequalities of the marlstone on which it rests. Its slow deposition is to be inferred from the fact, that it is in great part composed of myriads of spines and plates of microscopic echini and other remains. Amongst these the brachiopoda, including the first three species of leptæna above mentioned, are of most interest, and there also for the first time appear with them in abundance, the *Terebratula globulina*, Dav., and the *Rhynchonella pygmæa*, Dav. The *Thecidium rusticum*, Moore, also first appears, but is exceedingly rare. Six genera of *Foraminifera* are present in this bed, but they are also very rare, most of them being represented by but two or three individuals. Under the new order of deposits, fish and other vertebrata appear scarcely to have taken possession of the water, though just above there is evidence of their presence in increasing numbers. Thirty species are present in this thin bed, most of which, excepting the *Foraminifera*, which have passed into it from the Middle Lias seas, make their first appearance.

A b. This bed consists of a variegated clay about an inch thick. The *Leptæna Moorei* is present though more rarely than immediately below, whilst the *L. Bouchardii* and the *Thecidium rusticum* are more abundant; echini are also less frequent. In this band only two species of foraminifera—the *Planularia cornucopiæ*, Brady, and *Cristellaria rotula*, Lam., have been found, together with *Terebratula globulina*, *Rhynchonella pygmæa*, *Nucula*, *Entomostraca*, casts of several small univalves, and traces of fish scales, a much smaller list than that from the last bed.

A c. A brownish clay four inches thick, designated the *Thecidium rusticum* zone, from that shell having here its

greatest development. With the increase of this little brachiopod, those which first appeared in the lower zones as we pass upwards through these few inches of clay become more rare, and we now find that the *Rhynchonella pygmaea*, and the *Leptana Moorei* have all but disappeared and we have never found them in the zone above. For the first time we notice the *Leptana granulosa*, Dav., a species of great rarity, and only found in this and the three bands above. Detached *Aptychi*, with *Ostrea*, *Pentacrinites*, two species of foraminifera, and a few fish scales complete the list of remains from this bed.

A d. A bed of greenish clay two inches thick, in which are found a great number of the flattened casts of univalves, owing to which they cannot very satisfactorily be determined. The *Alaria unispinosa*, Moore, whence we designate this zone, is a very pretty and an abundant shell. Several valves of *Chiton unilobatum* (the *Peltarion* of M. Deslongchamps) have been obtained from it, and are also found in the ammonite beds above the fish and saurian zone.

A e. f. These beds having the same general character may be considered together. They are six inches thick, composed of a greenish clay. A circumstance to be noticed respecting them is, that they are separated about the middle by a thin iron band, and it is not a little remarkable as showing the persistent character of deposits of the same age over widely separated areas, that the same thin iron film is present in the Gloucestershire beds and has been noticed by the Rev. F. Smithe, M. A., in the Churchdown beds, in the Journal of the Cotteswold Club. In these bands we have the appearance of two new brachiopoda. One of them a new genus, the *Zellania liassica*, Moore, but which we have lately found in the Lower Lias, and the

Spirifera? Ilminsterensis, Dav., which has never been found elsewhere. The *Thecidium rusticum* which has been traced upwards now becomes scarce, and has never been found above the leptæna clays, and such is also the case with the *Planularia cornucopiæ*. Flattened impressions of ammonites are abundant, and nearly so their *Aptychi*. In the Gloucestershire sections fish remains are frequent in these clays, but in those of Somersetshire vertebrate life is rare, forming a most marked contrast to the conditions under which the beds next to be considered were deposited.

ORGANIC REMAINS OF THE LEPTÆNA BEDS.

Algae	<i>Discina orbicularis</i> , Moore
Seeds and plant remains	<i>Leptæna Bouchardii</i> , Dav.
<i>Cristellaria acuticularis</i> ,	„ <i>liasiana</i> , Bouch.
F. & M.	„ <i>Moorei</i> , Dav.
„ <i>cultrata</i> , Montf.	„ <i>granulosa</i> , Dav.
„ <i>rotula</i> , Lam.	„ <i>Davidsoni</i> , Deal.
<i>Dentalina filiformis</i> , D'Orb.	„ <i>Pearcei</i> , ? Dav.
„ <i>obliqua</i> , Linn.	<i>Lingula</i> , sp.
<i>Flabellina rugosa</i> , D'Orb.	<i>Rhynchonella pygmæa</i> , Dav.
<i>Fronicularia striatula</i> , Reuss.	<i>Spirifera? Ilminsterensis</i> , Dav.
<i>Lituola canomana</i> , D'Orb.	<i>Terebratula globulina</i> , Dav.
<i>Lingulina carinata</i> , D'Orb.	<i>Thecidium Bouchardii</i> , Dav.
<i>Marginulina eusia</i> , Reuss.	„ <i>Moorei</i> , Dav.
<i>Nodosaria raphanus</i> , Linn.	„ <i>triangularis</i> , D'Orb.
„ <i>paucicostata</i> , Roem.	„ <i>rusticum</i> , Moore,
„ <i>hispidula</i> , D'Orb.	<i>Zellania liassica</i> , Moore
<i>Planularia cornucopiæ</i> , Brady.	<i>Avicula pygmæa</i> , Moore
„ <i>Bronni</i> , Roem.	<i>Inoceramus dubius</i> , Sow.
<i>Vaginulina striata</i> , Reuss.	<i>Lima</i> , sp.
<i>Pseudodiadema Moorei</i> , Wright	<i>Ostrea</i> , 2 sp.
<i>Echini</i> , sp.	<i>Perna dubia</i> , Moore
<i>Ophioderma</i> , sp.	<i>Plicatula sarcinula?</i> Goldf.
<i>Pentacrinus</i> , sp.	<i>Arca</i> , sp.
<i>Serpula</i> , sp.	<i>Astarte</i>
Crustacea, claws of	<i>Cardita</i> , sp.
Entomostraca, sp.	<i>Nucula</i> , sp.
Coleoptera, wing of	<i>Alaria unispinosa</i> , Moore

Cerithium, cast	Ammonites Raquinianus, D'Orb.
Chiton unilobatum, Deal.	" communis, Sow.
Melania, cast	" serpentinus, Rein.
Nerinea, cast	" fimbriatus
Turbo, casts	Leptolepis
Turritella, casts	Hybodus, tooth
Ammonites annulatus, Sow.	Fish scales
" bifrons, Brug.	Ichthyosaurus, tooth of

B. THE SAURIAN AND FISH ZONE.

Whatever may have been the case with the leptæna clays, that the saurian and fish bed was deposited in an estuary there can be little doubt, since thousands of insects of this remote age were driven from the adjoining land, and settling upon the muddy surface, left by the ebbing tide of the surrounding ocean, were entombed, and their remains preserved through succeeding ages to this time, and with them are occasional fruits and vegetables which point to the same conclusion. Included in this zone are the beds of clay which surround the fish bed. The lowest has a thickness of three inches, the upper about the same. The yellow limestone or the fish bed proper, is at Ilminster, from three to six inches thick, except when it encloses any particular organism, when it usually takes a nodular form and is increased in size. At Rimpton and in the Gloucestershire sections the bed is often much thicker.

In passing upwards from the lower clays into that under the fish bed most of the mollusca have disappeared, and we find, though rarely, dismembered pentacrinites, echini, and star fish, foraminifera of three genera, with small pecten, ostrea, bryozoa, and entomostraca. *Vertebrata* now take possession of the water, and the bed below the limestone is in a large proportion composed of coprolitic matter and the scattered bones and scales of fish.

There is probably no other six inches of the earth's

crust in which are centered such a remarkable fauna, as in the saurian and fish bed, and in which the remains are in such a wonderful state of preservation. The bed in which they lie has been most conservative, and as Hugh Miller remarked of the old red fishes they have "caught no harm under its care," and seem almost to be things of life. When the upper ammonite beds are quarried and removed down to this zone, the saurian bed is seen to occur in irregular elongated or rounded patches, sometimes extending to some distance, and presenting a flattened pavement-like appearance, yellow externally, but sometimes bluer within. From contraction the bed is divided vertically in every direction into small blocks, not unlike septaria, but without any subsequent infiltration into the cracks, by which they were again united.

The larger and more important saurians and fishes are found in separate nodular masses. The marlstone below is much fissured, and there is a corresponding modification of the beds above. Although generally horizontal they are slightly compressed into the lines of fissure, giving on a small scale an appearance not unlike the pipe veins in the chalk. Whenever the beds cross one of these frequent lines of fissure, "gullies" are produced, and in them the separate nodules containing organic remains are most usually found. Such nodules are generally considered concretionary, but it is not the case in this instance as they have regular horizontal laminæ, and within them the little leptolepis, insects, and other remains are found, which, if they had been simply concretionary, could not have happened. It is not improbable some of the saurians and fishes may have met their death by being caught or overwhelmed in these fissures, for in two instances we have Teleosauri with their slender heads and jaws

almost erect as though they had been suffocated in an effort to disengage themselves. The great destruction of life at this period seems to have been caused by the sudden irruption of mud into the estuary or sea.

It is evident that the fish bed then deposited was not afterwards subject to any very violent denuding action ; the mechanical force of the waves, seems to have been only equal to the effect of wearing down the nodules, so as to present in many cases a stony outline of the organisms they enclose and of shifting then into the little "gullies" to which we have alluded. It often happens that a delicate portion of a jaw or fin has been left protruding from the nodule without having been abraded. The rippling action of the waves seems also to have been exerted chiefly on the upper surface of the fish bed, its under side usually retaining a more flattened form. The nodules might in many cases be compared to various forms of tea cakes, or to slightly contorted loaves of bread. It would be as though a young crocodile or a recent fish was taken and wrapped in a slight covering of dough or cement the outline of the specimen being to some extent preserved. This is most singularly exhibited when an Ichthyosaurus or a Teleosaurus happens to be imbedded. In this case the nodule containing the head of the specimen tapers to the point of the snout ; the base of the head being the thickest, is the broadest, and most raised. Below it, at the sides would most likely be found two lateral projections, indicating the position of the anterior paddles. The nodule then takes the rounded form of the enclosed body, until the tail is reached, and then as this diminishes in size there is a corresponding decrease in the stony matrix, until it again comes to a point. When a specimen is enclosed of greater size or length than usual, it is invariably sep-

tarian. A nodule containing an *Ichthyosaurus* for instance, might be divided into twenty or more pieces, some of the sections being separated almost as smoothly as though they had been cut through by a mason's saw. Prior to working it out it only requires washing and sticking together with cement to restore the original form. The outer shape indicates to the practised eye the generic and almost the specific character of the specimen enclosed, though no portion of it is visible. When a nodule contains a *Pachychormus*, the large size of the head of that fish shews the position in which it lies, whilst one containing the remains of a cuttle fish is comparatively flatter, more oval and uniform in shape. It must not be supposed that every Upper Lias nodule contains a specimen, or that they are plentiful, on the contrary, though for so many ages hundreds of saurians and fish have been lying undisturbed within a few feet of the surface of the Ilminster hills, yet it is very rarely that one comes to light, owing to the best localities being closed, and to the very little fresh ground opened up. Thirty years since, when all the roads were repaired with marlstone, would have been the geologist's harvest, for where one load is now extracted there were then many hundreds.

THE *ICHTHYOSAURUS ACUTIROSTRIS*? —All the specimens of this genus from the district we have described belong to one species, and are not improbably to be referred to the above, which has been found in the Upper Lias of Whitby, and at Boll in Germany, though the same species is quoted by Mr. Hawkins, from the Lower Lias of Street. We are not acquainted with any figures of the Upper Lias species, so that the conclusion must not be supposed definitive. Our species possesses a short head,

with a large cranium, and with a short jaw rapidly tapering to a point. The teeth are comparatively small, close-set and slightly curved. The eye is large, rounded or slightly oval, with its sclerotic plates usually uncompressed. The eyes of the first *Ichthyosaurus* we discovered had tumbled out of their sockets, and were lying separated from it in the clay, and were at first mistaken for ammonites. Until lately no specimen had been found in the Upper Lias of the South West of England but at Ilminster, but on lately attending a meeting of the Cotteswold Naturalist's Club at Dumbleton, we had the gratification of determining that saurian remains are also present in the Upper Lias of Gloucestershire. On entering the Dumbleton quarry our attention was attracted by a large nodular section of the saurian bed in the debris, which contained a portion of the body of an *Ichthyosaurus*. Some other portions were subsequently found, which were left to enrich the collection from the Upper Lias already formed by Miss Holland. In the railway cutting between Stroud and Nailsworth, the saurian bed is also present and from it we obtained a small jaw of *Ichthyosaurus*.

In the Dumbleton case, as at Ilminster, the saurian was in a number of detached sections, and unless these are all secured the specimen must be incomplete. We have seen an instance in which an *Ichthyosaurus* has found its long resting place over one of the "gullies," when a portion of it was lying in the undisturbed horizontal bed, and that part of it would be the first found, still without careful search and constant watching the completion of the specimen would be doubtful, but as the quarry was worked down the other portions of the specimen were extracted bit by bit in the fissure of the marlstone into which the beds had been compressed.

THE SKIN AND FOOD OF THE ICHTHYOSAURUS.—
In a paper published in the Geological Journal for May, 1853, by Mr. Cole, that gentlemen stated that in cleaning an Ichthyosaurus he occasionally observed layers of carbonaceous looking matter, which on microscopic examination showed numerous black points having a resemblance to teeth, that he had arrived at the conclusion that these dark patches formed part of the integument of the Ichthyosaurus, and that the teeth-like bodies were minute spines with which the body of the creature was covered, and my late friend Professor Quekett, gave a plate with enlarged figures of the spines confirming this view. My attention being directed to the point, I examined the Ichthyosauri in my museum, and found that in not less than seventeen of them this carbonaceous looking matter, or scattered hooks like those mentioned could be traced. On examining these black patches with the lens, it was found that they were almost wholly made up of these minute bodies. Supposing them to have been portions of the skin, they would be expected to be found on any part of the Ichthyosaurus, instead of which, in every instance, they were in the stomachs of these ancient saurians. The conclusion was therefore forced upon me that they could have no connexion with the skin of the Ichthyosaurus, but rather that they formed part of the food of the animal. Contemporaneously with these creatures, there were living a number of naked cephalopoda allied to the cuttle fish of the present day, and it was to them I looked for a solution of the question. Although in some formations—the Oxford Clay for instance—the fleshy arms of the *Belemnoteuthis*, and the *Geoteuthis* are preserved, these hooks had not at this time been found in connexion with the cephalopoda of the lias, but on an examination of the clays of the lias, several

kinds were detected. There is no doubt therefore that the cuttle fishes and allied genera were devoured by the Ichthyosauri in great numbers, if we may judge by the immense numbers of their horny hooks still retained within their stomachs, and there can be no doubt the dark inky matter with which they are associated was the once fluid ink of these ancient fishes. In one example in my museum the ink may be taken from under the ribs of the saurian, and though such an enormous time has elapsed since it formed part of the food of the Ichthyosaurus, it is found still to retain its colouring properties and may be used instead of sepia, and I have also lately extracted from a coprolite a perfectly preserved beak of cuttle fish.

Were the foregoing not conclusive on this point, the wonderful preservation in which the Upper Lias saurians are found would afford sufficient evidence. It is not often the softer parts of extinct animals are preserved, but from the Upper Lias there have been instances in which I have had to cut through the outer integument of the Ichthyosauri in order to clear their skeletons, which may now be seen lying upon their under skins which can be traced almost uninterruptedly throughout their entire length. The animals are usually uncompressed and the line of skin fringes the vertebral column and the paddles in proportion to the thickness of the flesh which has perished. Cuttle fish ink and hooks are in almost every instance within their stomachs, but none of the latter were ever attached to the skin. This retains its purplish gray tint, and possesses a wrinkled texture very similar to that of the porpoise of the present day.

It is a curious fact, and one we believe that has not previously been noticed, that whilst the Ichthyosauri appear in liassic times to a great extent to have fed on the naked

cephalopoda, others of this family in their turn retaliated. In several instances, which were probably those of *dead* saurians, their bodies were covered by colonies of ammonites, which were evidently preying upon them before they were finally entombed, and in order to clear their skeletons from the matrix, we have had to cut through them before they could be reached.

THE TELEOSAURUS TEMPORALIS, *Blainville*.—This is the only other saurian yielded by the Upper Lias of this district, though in the alum shales of Whitby, the *Teleosaurus Chapmanii* of much larger size, with the *Plesiosaurus brachycephalus* are found. The remains of Teleosauri appear to be more frequent in the saurian and fish bed than those of Ichthyosauri, for during the time we have been working at the Upper Lias, ten examples have been noticed, some of which are very perfect. There is a portion of this saurian from the Tesson collection, in the British museum, which was found in the same bed in Normandy. The largest specimen from Ilminster indicates a saurian of about six feet in length. Another with a small part of the caudal vertebræ wanting, measures only thirteen inches in length, and when perfect could scarcely have exceeded eighteen inches, and is probably the smallest Teleosaurus known. As its discovery was quite accidental, and as it is a very beautiful specimen its history is given. On carelessly striking a piece of the yellow limestone of the saurian bed, which was lying on a heap of the marlstone, with the hammer, a small portion flew off exposing a fragment of bone, which on examination proved to be part of the jaw of a little saurian, the continuation of which, after a lengthened search, was found in another block. Several months was occupied with its development, and when finally cleared the cervical vertebræ

leading to the edge of the stone indicated that its body might have been found in another block, and the quarry was again repaired to with the hope of finding it, but without success. Some months again elapsed when, as a last hope, it was considered possible the body might still be lying in its original bed in the section.

With the block containing the head the quarry was again sought and it was fitted to the exposed edges of the saurian and fish bed until a piece was found which joined on somewhat roughly, but which, notwithstanding, was supposed to contain the body of the little specimen. On working down below the point where the skeleton should have shown itself no part was visible, and it was thought after all the labour had been lost. Turning the block on edge and endeavouring to split it, a bit of bone not larger than a pin, belonging to one of the lower limbs was exposed, and working away from this indication we were led on to the body, which, with its vertebral column, is still covered up by its undisturbed bony scutes, with which, like the gavial of the present day, to which it is closely allied, this little crocodile is furnished, and by these fortunate incidents we were enabled to complete one of the most beautiful little specimens ever discovered. The head and neck had been dislocated and slightly removed from the body before it was covered up, which prevented its continuation from being traced in the block. Whilst engaged in slowly clearing its body a part was reached where the scutes gave way under the chisel, owing to the matrix being less consolidated, and as this was supposed to be the position of the stomach of the little creature we felt much curiosity to look therein for evidences of its food, which, as in the case of its contemporary the *Ichthyosaurus*, we were at last enabled to determine. In the waters with the

Teleosaurus, a little fish of the genus *Leptolepis* abounded, and when it was sufficiently cleared we found one of these fishes lying undigested in the stomach of the little Teleosaurus, the last meal it had eaten countless ages ago.

FISHES OF THE UPPER LIAS.—Equally perfect with the reptilia just mentioned, when removed from their stony sarcophagi, are the fish of the yellow limestone. In some instances they are still as round and uncompressed as if they had just been taken from their native element. Of the larger predacious ganoid fishes, the *Pachycormi*, are the most common, and are probably represented by six species. The *P. macropterus*, Ag., attains the largest size, and reaches $2\frac{1}{2}$ feet in length, whilst the *Lepidotus gigas*, Ag., reached the same size, and was not uncommon. Of the genus *Eugnathus*, three examples only, with little more than their heads preserved have been found, whilst still more rare are the genera *Dapedium* and *Pholidophorus*, which are represented in my museum by a single head of each genus. On the contrary, the little *Leptolepis* must have existed in the Upper Lias seas in shoals, and no doubt formed the staple food, not only of the Teleosaurus, but of the predacious fishes just mentioned.

Pachycomus macropterus, Ag.

„ *curtus*, Ag.

„ *gracilis*, Ag.

„ *latirostris*, Ag.

„ *latipennis*? Ag.

„ *sp.*

Eugnathus chirotus? Ag.

Lepidotus gigas, Ag.

Pholidophorus, sp.

Leptolepis constrictus, Egerton

„ *concentricus*, Eg.

„ *Bronni*, Ag.

„ *sp.*

„ *sp.*

Dapedium, sp.

Hybodus, teeth of

CEPHALOPODA OF THE SAURIAN AND FISH BED.—

The most noteworthy of this class are the naked cuttle fishes of the genera *Geoteuthis*, Munst., and *Teudopsis*, Desl. Almost every second nodule, containing organic remains

from this bed, would probably yield one or other of the above, so that they must have been very numerous, and it has been previously shown that they formed the chief food of the Ichthyosauri of this period. The softer parts of these cuttle fishes have perished, leaving only the internal cuttle bone, in the centre of which the ink bag is usually found, still charged with its black pigment. It is rarely any traces of their fleshy arms, with their suckers and horny hooks are found attached, though the latter are often found scattered on the surfaces of the limestone. The *Belemnitidæ* in this bed are very rare. Several minute forms from it, associated with ink bags, are at present in the hands of Professor Phillips, F.R.S., who is completing a monograph on this class for the Palæontographical Society. The *Ammonites* include the *A. fimbriatus*, *A. serpentinus*, *A. radians*, *A. complanatus*, *A. communis*, and *A. Raquinianus*, and in many instances, even though they may be microscopic, they still retain within their outer chambers their *Aptychi* which served as an operculum. Seven varieties of this body are present in this bed, a special form belonging to each separate species of ammonite. We gave a notice of the *Aptychus* in the "Proceedings" for the year 1851.

INSECTA OF THE SAURIAN AND FISH BED.—The interest attaching to the discovery of insect life in periods so remote is at all times considerable, and with those from the Upper Lias it will not be less so, from the fact that my collection consists of more than 1000 specimens, and will include many genera and species. Their description needs a special study, and would be a work involving much labour, and it is a matter of regret that hitherto I have been unable to place them in the hands of any gentleman who has sufficient courage for the task. The Rev. P. B.

Brodie, F.G.S., has given figures of several species from the Upper Lias of Dumbleton. The families represented at Ilminster include the *Libellula*, *Neuroptera*, *Orthoptera*, *Homoptera*, *Diptera*, and *Coleoptera*.

For the discovery of insects as well as for any small organisms, it is necessary to break up the bed and carefully examine the surface of its laminæ. Some hundreds of tons have been broken up in this way to furnish the fauna under notice.

CRUSTACEA OF THE SAURIAN AND FISH BED.—With the varied fauna previously enumerated, the thin band of stone under consideration has also yielded not less than six genera and nine species of crustacea. They have been for some time in the hands of my friend Henry Woodward, Esq., F.G.S., of the British Museum, for description, who has kindly furnished the following notes respecting them. A point of considerable interest concerning them is, his determination that the specific forms which occur at Ilminster, in the Upper Lias, recur in the lithographic slate of Solenhofen, one of the upper members of the oolite.

“The first systematic account of the Jurassic Crustacea was published by our late lamented friend Dr. Albert Oppel, Professor in the University of Munich, and Conservator of the Palæontological Collections in that city, (entitled “Ueber Jurassische Crustaceen (Decapoda macrura),” being Part I. of his “Palæontologische Mittheilungen,” Stuttgart, 1862.)

In this work he gives a list of all the Macrouran Decapods (*i. e.* the lobsters and shrimps) from the Lower Lias up to the Lithographic Stone, the summary of which

I append, as serving to illustrate the distribution of this class in the oolitic and liassic series.

Published in 1862.	Number of GENERA ...	SPECIES ...	LOWER LIAS.	MIDDLE LIAS.	UPPER LIAS.	INFERIOR OOLITE.	BATH OOLITE.	KELLOWAY ROCK.	OXFORDIAN.	KIMMERIDGE GROUP.	LITHOGRAPHIC LIMESTONE.	Decapoda. Macrouro.
			5	3	4*	2	1	5	5	3	21	Actual Number of Genera 24
			10	8	4*	7	3	12	14	8	70	Actual Number of Species 136.

To this summary many additions must now be made. Of the 136 species given, *none are recurrent*, but of the 24 genera, 8 are widely ranging forms.

Thus the genus *Eryma*, Meyer, occurs in the Middle Lias, the Lower and Upper Oolite, the Kelloway Rock, the Oxford and Kimmeridge Clays, and the Lithographic Stone.

Species of the genus *Glyphea*, Meyer, were known to occur in every section of the lias and oolites, *except the Upper Lias*.

The genus *Eryon* is found in the Lower and Upper Lias, the Oxfordian and Lithographic series.

I now propose to enumerate all the forms known to occur in the Upper Lias limestone of Ilminster, determined from specimens sent me for examination by Charles Moore, Esq., F.G.S.

ERYON.—*Desm.*

The largest consists of an almost entire, but much mutilated, specimen of *Eryon*, the carapace of which would have been 3 inches in length and more than 2 inches in breadth; the abdomen $3\frac{1}{2}$ inches in length and 2 inches in

* By additions from Ilminster given below, these are increased to 9 Genera and 14 Species. June, 1867. H. W.

breadth. It differs in its proportions from *E. Barrovensis* only in the greater length of the fore arm, in which character it resembles *E. antiquus*. Should more remains be found, it may be specifically separated, meantime I prefer to refer it to *E. antiquus?* with a note of interrogation, (see Quart. Jour. Geol. Soc., vol. XXII. p. 500.)

The other specimens of *Eryon* consist of detached limbs, portions of body segments or carapaces, too fragmentary to be of more than generic value. The most interesting of this genus is the *Eryon Moorei*, (*mihi*), described in Quart. Jour. Geol. Soc., vol. XXII. p. 499, pl. XXV. fig. 3. It is one of the best preserved specimens from this formation.

PALINURINA.—Münst.

Three species of this curious genus are known to occur in the lithographic stone of Solenhofen. It is at once distinguished (like its recent homologue *Palinurus*) by the great development of its antennæ, (which are usually more than double the length of the entire body of the animal), by the large size of the three first joints of the same organs, and by the absence of chelæ in the thoracic limbs which are all monodactylous in the fossil species. These generic peculiarities are well seen in one of the specimens of *Palinurina longipes*, Münst.

I have examined two imperfectly preserved examples of this genus, from Ilminster, and from their measurements I have referred them to the *Palinurina pygmæa*, of Münster. Length of abdomen 4 lines; length of cephalothorax $3\frac{1}{2}$ lines. Breadth of cephalothorax and abdomen, both 2 lines. The abdominal segments are porcellaneous and ornamented with exceedingly minute tubercles upon their dorsal surface.

PALINURINA LONGIPES.—Münst.

The impressions and counterparts of four examples of this genus, much larger than those which I have attributed to *P. pygmaea*, have decided my adoption of a second species, and I have accordingly determined them to belong to the *P. longipes?* of Münster, but as they are only imperfectly preserved, it would perhaps be more correct to add a note of interrogation after the specific name. Length of cephalothorax and abdomen, 11 lines, breadth of same, 3 lines. Length of antenna preserved, 13 lines, length of one of the thoracic limbs, 6 lines.

PENÆUS.—Fabricius.

The remains of two individuals apparently belonging to this genus have been found by Mr. Charles Moore, at Ilminster.

They agree very closely in size with the *Penæus latipes*, of Oppel, and until more perfect remains occur to warrant a change, I propose to refer them to that species. Length of cephalothorax, 1 inch 7 lines, depth 11 lines. Length of abdomen $2\frac{1}{2}$ inches. Depth of segments $\frac{1}{2}$ inch. The surface of both the cephalothorax and abdomen has been covered with a light brown-coloured 'glistening enamelled shell as thin as that of the modern *Palæmonidæ*.

ERYMA, Meyer.—(Glyphæa, Münster.)

The genus *Eryma* is most widely distributed, being found in the Middle Lias, and thence ranging up to the lithographic limestone. It was only absent from the *Upper Lias*. This *hiatus* has been supplied by Mr. Charles Moore's collection.

I have identified a carapace, and a chela with Oppel's *Eryma elegans*, some detached chelæ with Oppel *Eryma Greppini?* and certain others may be the chelæ of *E. fuciformis*, or one of the other smaller species of the genus *Eryma*.

ERYMA ELEGANS.—*Oppel*.

The surface of the carapace is evenly turberculated, the gastric, cardiac, hepatic, and branchial regions, are surrounded by well defined sulci, the two principal of which, passing over the dorsal surface of the carapace, unite with the hepatic furrows on either side near the margin. Length of carapace 2 inches, breadth at widest part, from the median line to the lateral margin, 1 inch.

A well-preserved hand (No. 28) probably belonging to the same species (*Eryma elegans*, *Oppel*) measures from its articulation with the wrist to the extremity of the fixed ramus of the pincer, 17 lines; its greatest breadth is $7\frac{1}{2}$ lines; the length of the ultimate joint or moveable finger is 10 lines. The tuberculation of the surface of the chelæ is less strong than that of the carapace, but the specimen appears to have been somewhat rubbed, or scraped, in developing it from the matrix.

HEFRIGA.—*Münster*.

Remains of five examples of a minute shrimp-like crustacean (measuring about 10 lines in length) have also been met with in the Upper Lias of Ilminster by Mr. Charles Moore.

From a careful examination of these specimens I am enabled to refer them to Münster's genus *Hefriga*, but I prefer deferring its positive specific determination in the hope that more perfect remains may be found. It agrees most nearly with the *Hefriga Frischmanni* of *Oppel*, from Solenhofen.

GLYPHEA.—*Meyer*, sp.

Remains also occur of a small species of *Glyphea*, the carapace of which measures 8 lines in length, and agrees in the finely granulated character of its surface with the

Glyphea Heeri, of Oppel from the Lower Lias. It was found by Mr. Moore at Ilminster, and is of the age of the Upper Lias.

Conclusion.—The species of Crustacea already known and described as occurring in the Upper Lias are as follows :—

I.	1.	Eryon Hartmanni, Meyer	U. Lias,	Wurtemberg.
	2.	„ Edwardsi, Morière	„	Calvados, France.
	3.*	„ antiquus ? Brodp., sp.	„	Ilminster (H. Wodw.
	4.*	„ Moorei, H. Woodw.	„	Ditto ditto
II.	5.	Magila Bonjouri, Etall	„	Les Nans, Jura.
III.	6.	Uncina Posidoniae, Quenstedt.	„	Franconia, Germany.
IV.	7.	Pseudoglyphea stricta, Etall	„	Corlée, France.

The genera and species now added are :—

V.	8.	Palinurina pygmaea, Münst.	U. Lias,	Ilminster.
	9.	„ longipes ? Münst.	„	„
VI.	10.	Penaeus latipes, Oppel	„	„
VII.	11.	Eryma elegans, Oppel	„	„
	12.	„ fuciformis, Schl.	„	„
VIII.	13.	Hefriga Frischmanni ? Oppel	„	„
IX.	14.	Glyphea Heeri ? Oppel	„	„

making an addition of five genera and probably seven species to our list of British Crustacea.

It is not a little interesting that we find so many forms, common to our Lias, which agree in identity with species found only in the lithographic stone of Solenhofen in Bavaria. The persistence of such forms as *Eryon*, *Eryma*, and *Glyphea* seems clearly to demonstrate that having escaped total extinction in the Lower Lias sea, they must have migrated from time to time to more favourable areas, and thus have been enabled to live on, during the deposition of the long series of sedimentary deposits up to the period of the deposition of the lithographic stone in which so many examples are found fossil.”

H. W.

* Already noticed in Quart. Jour. Geol. Soc. Vol. XXII., p. 499, (1866.)

To the above list of crustacea are only to be added a colony of *Cirrhipedia* of many hundreds in number, attached to a piece of wood throughout its entire length, or rather to another colony of *Mytilidæ*, which had previously taken possession of its surface.

Notwithstanding the variety of the *Brachiopoda* in the marlstone and the peculiar forms in the leptæna beds, only one member of this family passes into the saurian and fish bed—the *Discina orbicularis*, Moore.

Having so fully noticed the contents of this remarkable bed, it will only be necessary to give a list of the remaining fauna occurring in it, most of which are very dwarfed, possibly arising from the estuarine condition of the deposit before suggested.

Avicula, sp.	Modiola dorso-plicata, Moore
Gervillia oblonga, Moore	Mytilus, n.s.
Gryphæa depressa, Phil.	Posidonomya Bronni, Goldf.
Inoceramus dubius, Sow.	Alaria, sp.
Lima, sp.	Pleurotomaria ? sp.
Ostrea, sp.	Turbo, sp.
Pecten, sp.	Plantæ
Placunopsis, sp.	Fruits
Plicatula sarcinula ?	Ferns, remains of
Astarte parallela, Moore	Algæ Bollensis
Corbula Somersetensis, Moore	Chondrites, Quenst.
Cypriocardia ? sp.	

THE UPPER CEPHALOPODA BEDS *C. a to q.*

The absence of vertebrate life in the beds below the saurian zone has been alluded to, and when those above that horizon are examined, the absence of this important class is again most marked. The beds in this group are a succession of alternate bands of stone or indurated marl and clays, varying with almost every thin layer, and each having, as has before been remarked, its special zoological

horizon, though not of so decided a character as those below. Our space will allow only a somewhat general reference to them.

A visit to any of the sections in which these beds are present will at once show the great abundance of the cephalopoda through them. Chief amongst these are the *Ammonites bifrons*, *A. serpentinus*, *A. annulatus*, *A. radians*, *A. communis*, and others more rarely, a list of which will be given hereafter. *Belemnitidæ* of four or five species are also abundant, including, though rarely, fine examples of the *B. Ilminsterensis*, Phill., with their lengthened phragmacones still attached.

Although the great abundance of organic life at the time of their deposition is at once manifest, still a mere superficial view will give but a very imperfect idea of their profusion, which can only be obtained by a more minute investigation of the material of which the beds are severally composed. It will then be seen that they are crowded with interesting organisms, the *Foraminifera*, of which figures will be found in plates 1, 2, 3, being most abundant.

Zone *a*, which comes immediately above the saurian and fish clays, is not only an illustration of this fact, but also of the zoological changes apparent in beds immediately contiguous. The vertebrate remains below seem almost entirely to have disappeared, and multitudes of lower forms take their place. The *Rhynchonella Bouchardii*, Dav., is abundant on this horizon, and has not been observed elsewhere, and within this thin bed of two inches, nearly forty species of organic remains may be found. It is generally only the bands of clay that admit of this critical examination. *Foraminifera* in this bed are very abundant.

- b. Stone with numerous *Cephalopoda*.
- c. An indurated concretionary clay with but few organisms.
- d. *Cephalopoda*.
- e. Mottled clay 3 inches, with *Foraminifera* and other remains very abundant.

It will be sufficient to state that similar changes take place as the beds pass upwards, some shells, as the *Planularia harpula*, D'Orb., and the *Crania Moorei*, Dav., being apparently confined to special horizons.

SPECIES FROM THE UPPER CEPHALOPODA BEDS.

Choanites, sp.	<i>Planularia longa</i> , Cornuel
„ sp.	„ <i>pauperata</i> , P. & J.
<i>Cristellaria acutaicularis</i> , F. & M.	<i>Vaginulina legumen</i> , Linn.
„ <i>costata</i> , D'Orb.	„ <i>levigata</i> , Roem.
„ <i>cupidula</i> , F. & M.	„ <i>striata</i> , Reuss.
„ <i>cultrata</i> , Montf.	<i>Webbina irregularis</i> , D'Orb.
„ <i>rotula</i> , Lam.	<i>Trochocyathus Moorei</i> , M. Edw.
<i>Dentalina communis</i> , D'Orb.	„ <i>primus</i> , M. Edw.
„ <i>filiformis</i> , D'Orb.	<i>Thecosmilla</i> , sp.
„ <i>pauperata</i> , D'Orb.	Corals, several sp.
„ <i>plebeia</i> , Reuss	<i>Serpula gordiatus</i> , Quenst.
<i>Flabellina rugosa</i> , D'Orb.	„ <i>trisulcatus</i> , Quenst.
<i>Fronicularia complanata</i> , Defr.	„ several sp.
„ <i>striatula</i> , Reuss	Crustacea, claws of
<i>Lituola cenomana</i> , D'Orb.	Entomostraca, 2 sp.
<i>Lingulina carinata</i> , D'Orb.	<i>Pseudodiadema Moorei</i> , Wright
<i>Marginulina raphans</i> , Linn.	<i>Cidaris Ilminsterensis</i> , Wright
„ <i>eusia</i> , Reuss	<i>Apirocrinus amalthei</i> , Quenst.
<i>Nodosaria hispida</i> , D'Orb.	<i>Ophioderma</i> , joints
„ <i>humilis</i> , Roem.	<i>Pentacrinites</i>
„ <i>paucicostata</i> , Roem.	Bryozoa, sp.
„ <i>raphanus</i> , Linn.	<i>Crania Moorei</i> , Dav.
„ <i>raphanistrum</i> , Linn.	<i>Lingula</i> , sp.
„ <i>radicula</i> , Linn.	<i>Rhynchonella Bouchardii</i> , Dav.
<i>Planularia Bronni</i> , Roem.	„ <i>coronata</i> , Moore
„ <i>harpula</i> , D'Orb.	„ <i>Moorei</i> , Dav.
	„ <i>variabilis</i> , Schlot.

- Spirifera rostratus*, Schlot.
 „ sp.
Terebratula Lycettii, Dav.
 „ sp.
Terebratella
Thecidium triangularis, D'Orb.
 „ *Bouchardii*, Dav.
Avicula, sp.
Crenatula, sp.
Hinnitès velatus, Goldf.
 „ sp.
Gryphæa depressa, Phil.
Inoceramus dubius, Sow.
 „ *plicatus*, Moore
Lima punctata, Sow.
 „ several sp.
Ostrea cymbium, Oppel
 „ sp.
Pecten contrarius, Quenst.
 „ *textorius*, Schlot.
 „ several sp.
Plicatula, sp.
Arca interrupta, Moore
Astarte, sp.
Leda complanata, Phil.
 „ *ovum*, Sow.
Lithodomus, sp.
Myacites, sp.
Opis, sp.
Pholadomya, sp.
Amberleya capitaneus, Goldf.
 „ *Lycettii*, Moore
Actæonina, sp.
Alaria coronata, Moore
 „ *angulata*, Moore
Cerithium coronatum, Moore
 „ *Ilminsterensis*, Moore
 „ *sub-lineatum*, Moore
 „ *minor*, Moore
 „ *planum*, Moore
 „ *varicosum*, Desl.
Chiton unilobatum, Desl.
Discohelix Dunkeri, Moore
Dentalium, sp.
Natica Pelopa, D'Orb.
Neritopsis Spekei, Moore
 „ *transversa*, Moore
Onustus spinosus, Moore
Pleurotomaria Comptonensis,
 Moore
 „ *princeps*, Kock.
 „ & Dunk.
 „ *dicipiens*, Desl.
Rimula punctata, Moore
Solarium, sp.
Trochus similis, Moore
Turbo Bertholeti? D'Orb.
 „ *constrictus*, Moore
 „ *Jonesei*, Moore
 „ *varians*, Moore
 „ *Rutteri*, Moore
 „ sp.
Turritella varicosum, Desl.
Ammonites annulatus, Sow.
 „ *armatus*, Sow.
 „ *bifrons*, Brug.
 „ *communis*, Sow.
 „ *comensis*, Buck.
 „ *complanatus*, Brug.
 „ *crassus*, Phil.
 „ *fibulatus*, Sow.
 „ *fimbriatus*, Sow.
 „ *heterophyllus*
 „ *insignis*, Schrub.
 „ *jugosus*, Sow.
 „ *Ilminsterensis*, Lycett
 „ *Moorei*, Lycett
 „ *raquinianus*, D'Orb.
 „ *radians*, Rein.
 „ *serpentinus*, Sow.
 „ *sub-armatus*, Sow.
 „ *sub-carinatus*, Phil.

Ammonites striatulus, Sow.	Belemnites tripartitus?
„ variabilis, D'Orb.	Nautilus semi-striatus, D'Orb.
Belemnites Ilminsterensis, Phil.	Hybodus tooth
„ quadricanaliculatus,	Lepidotus scales
Quenst.	Many species in casts undeter-
„ striolatus, Phil.	minable.

On the uppermost horizon of the Upper Lias, and particularly where the beds attain the greatest thickness, several are present in which the *Ammonites variabilis*, *A. insignis*, and *A. Moorei*, are chiefly found, and which have migrated from the Upper Lias seas into the Cephalopoda bed of the sands above, such being also the case with the *Amberleya capitaneus*. It has not only been proposed to classify these oolitic sands with the lias, but my friend Dr. Deslongchamps, has also suggested including all the beds of the Upper Lias down to the marlstone with the inferior oolite. With so varied a fauna in the Upper Lias, and so few species that are common to the two formations, to say nothing of the very persistent lithological distinctions between them, I am unable to agree with the propriety of either of these proposals.*

Before the deposition of the oolitic sands, there appears throughout the South West of England to have been an interregnum in which the gasteropoda more particularly abounded. The upper beds have been much abraded, and to their ragged surfaces they are attached in considerable numbers. This is very well shown in the upper beds of Compton, and it is generally the case that the few corals in the Upper Lias are found also in the higher beds. In a paper on the "Abnormal Conditions of the Lower Lias when connected with the Somersetshire and South Wales

*According to Dr. Lycett, who has given much attention to this point, only 14 species are common to the two horizons. See "The Cotteswold Hills", 1857.

Coal Fields," I have pointed out similar conditions, and that there also gasteropoda and a coralline fauna prevailed.

It is rarely within the space of a few feet so interesting and varied a fauna as has now been noticed is present.

In the Ilminster Middle Lias, including Cross, are 197 species; in the leptæna beds 70; in the saurian and fish zone 110?; and in the cephalopoda beds 150; whilst the rocks of the lower horizons of Camerton, Whatley, &c., yield 179. Allowing for those which are recurrent, and including some few forms in casts which are specifically not recognizable, the Somersetshire fauna yields in the whole from the Middle and Upper Lias, about 580 species.

DESCRIPTION OF SPECIES.

AMBERLEYA CAPITANEUS. Plate 6, fig. 1—5.

Turbo capitaneus.—Goldf.

Shell thick, turbinated, conical, turreted; whorls 5-6, with encircling nodulated carinæ, between which are interstitial canaliculated spaces which are crossed longitudinally by very fine striæ, the carinæ increasing in number on the body whorl, and passing round the base of the shell; aperture very large, sub-quadrate, or lengthened, widening at the lower margin; outer lip thin and fringed by the carinæ; columella folded and produced.

There appears little doubt that our specimens are identical with others described from the Nailsworth sands. Several of our examples however have an additional whorl, and are as large again as any previously figured, the last or body whorl being as long as all those above. The aperture has been modified thereby, and from being sub-quadrate has become more lengthened. *Eucyclus* has been proposed by Dr. Deslongchamps for this group of gasteropoda, but the term *Amberleya*, Lycett, appearing to have priority has been retained.

Dr. Lycett having figured a specimen from the Forest Marble, the species is shewn to have a very long range in time. Figures 4 and 5 are added for comparison from the inferior

oolite. Our examples are from the highest bed of the Upper Lias at Compton. Length of largest specimen $1\frac{1}{2}$ in., breadth 1 in.

AMBERLEYA LYCETII.—*Moore.*—Plate 6, fig. 6.

Shell rather elongate, conical; volutions 6-7; angulated or convex towards their base. The upper portion of each whorl is ornamented by two concentric lines of faint rather irregular tubercles; on the lower margin are two regular closely granulated carinæ, between which is a flattened area; these are crossed longitudinally by faint oblique striæ; the base of the body whorl is extended and possesses many striations; aperture large, longitudinally ovate; columella and inner lip folded.

We possess but a single example of this species from the Upper Lias at Compton. It is not in very good condition.

ALARIA UNISPINOSA.—*Moore.*—Plate 4, fig. 1, 2.

Shell fusiform, elongate, turreted; apex acute; volutions 8, angulated and carinated; surface with numerous transverse striæ, and with longitudinal costæ on the upper whorls. From the carina on the body whorl there springs a very fine and narrow spine, which curves upwards and extends more than the diameter of the shell beyond the margin; outer lip slightly recurved; aperture rather large, lengthened, and continued into a very long slender canal; columella very extended and slightly folded.

This elegant shell is rather plentiful in the leptæna clays of zone *A d* of the Upper Lias, at Ilminster and other localities, and hitherto we have failed to recognize it elsewhere. It is only found in the laminæ of the clay in which it is compressed and has in all cases lost its test.

ALARIA ANGULATA.—*Moore.*—Plate 4, fig. 4.

Shell fusiform, tapering, spire extended; apex acute; whorls, 6-7, carinated rather below the middle of each whorl, on each side of which is an angulated area, ornamented by encircling striations; aperture longitudinally ovate, with a narrow produced, straight canal.

Of this species we possess but one example from the highest Upper Lias bed of Compton. It is not quite perfect and like most of the gasteropoda from this place has suffered slightly from abrasion.

ALARIA CORONATA.—Moore.—Plate 4, fig. 3.

Shell turreted; spire moderately elevated; volutions 7, angulated. The upper margin of each whorl possesses a single line of small regular granulations, whilst rather below the middle of each whorl is a rounded faintly nodulated carina, which divides the angulated portions of the whorl and there is a smaller carina towards the base. The three upper whorls have longitudinal costæ which are very faint or disappear on those below.

This is a very pretty species, of which we possess only a single specimen from the Upper Lias at Ilminster. The mouth and lip are concealed so that its entire form cannot be determined.

ACTÆONINA ILMINSTERENSIS.—Moore.

Plate 5, fig. 25, 26.

Shell sub-cylindrical, of five whorls, conical, smooth, but marked by numerous depressed transverse striæ, and also by depressed longitudinal lines of growth; spire extended, acute, the upper part of each whorl having an angle bounded by a raised transverse line; aperture the length of the last whorl, ovate; the inner lip slightly folded and thickened.

This genus has not been recognized in this country below the great oolite, though we have obtained the allied forms of *Cylindrites* of several species from the Rhætic beds. We have only two examples of the species which are both from the marlstone of Ilminster. Length of shell $6\frac{1}{2}$ lines, breadth $3\frac{1}{2}$.

CYLINDRITES WHITFIELDII.—Moore.—Plate 5, fig. 27.

Shell cylindrical, smooth and without ornamentation; spire extended; volutions 6, rather convex, separated by a slightly angular transverse sinus; last whorl extended, with long aperture, widest in the middle; outer lip somewhat convex; columella lengthened and slightly folding outwardly.

Only one example of this shell which is from the marlstone at Ilminster, is known, and is named after my friend the Rev. E. Whitfield, of that town. Length of shell 5 lines, breadth 2 lines.

CERITHIUM ASPERULUM.—Moore.—Plate 4, fig. 5.

Shell turreted, conical; spire tapering; apex acute; volutions 7-8, divided by a slight sutural area, into which the

upper row of nodulations slightly project; shell ornamented by distinct transverse striæ, which are crossed by numerous straight longitudinal costæ, which possess sharp raised nodulations.

We have only a single example from the Upper Lias of Whitelackington, and also one from the Middle Lias, of Ilminster.

CERITHIUM VARICOSUM.—*Desl.*—Plate 4, fig. 15.

Shell cylindrical; spire extended, of 13-14 volutions, the suture dividing them small and angulated; on the surface are three or four raised transverse striæ, the first and third being most prominent, these cross nine very raised longitudinal costæ which possess an edge of nodulations of rather unequal elevation. Between the costæ are eight deep oblique rounded sutures which continue through the length of the shell.

We possess four examples of this species which are from water worn raggy beds on the highest horizon of the Ilminster Upper Lias.

CERITHIUM MINOR.—*Moore.*—Plate 4, fig. 6.

Shell small, tapering; volutions 7, convex and slowly increasing; suture distinct; the whorls with numerous longitudinal curved costæ, and with very faint transverse striæ, which are only distinguishable with the lens.

We have only a single specimen from the Ilminster Upper Lias.

CERITHIUM PLANUM.—*Moore.*—Plate 4, fig. 7.

Shell elongate, pyramidal, apex acute; spire regularly tapering, composed of 12 flattened smooth volutions, which are separated by a very fine encircling suture.

Of this shell we possess but two examples, both of which are from the Upper Lias at Compton.

CERITHIUM CORONATUM.—*Moore.*—Plate 4, fig. 14.

Shell small, cylindrical, turreted; volutions 6-7, increasing very slowly, convex; apex obtuse; whorls with longitudinal costæ which are most prominent and terminate in nodules on their upper margins. The costæ are crossed by six or seven regular transverse striæ.

This little species is from the Upper Lias of Ilminster, from whence we have but two examples.

CERITHIUM GRADATUM.—Moore.—Plate 4, fig. 10.

Shell fusiform; spire tapering; apex acute; whorls 10-11, separated by a narrow angular suture; the surface ornamented by encircling striæ, which are crossed by oblique rather curved costæ, on the edges of which are rounded turbercles, which are largest on the upper margin of the whorls, and gradually decrease below.

Only two specimens are known, both of which are from the Upper Lias, one from Ilminster, the other from Moolham.

CERITHIUM ILMINSTERENSIS.—Moore.

Plate 4, fig. 12-12 a.

Shell small, thick, turreted, pyramidal, with 9 convex volutions, encircled by three rows of nodulated striæ on the upper whorls, and by eight or nine on the lower, which are decussated by numerous longitudinal costæ which cross an angulated sinus at the base of each whorl; aperture sub-ovate; inner lip reflected. No umbilicus.

This pretty species is from the Upper Lias of Ilminster from which we have four examples.

CERITHIUM SUB-LINEATUM.—Moore.—Plate 4, fig. 11.

Shell elongate, thin, pyramidal, smooth; whorls 10-11, rather flattened; shell structure smooth, but ornamented by very numerous depressed curved longitudinal striæ.

We possess but one example of this species which is not quite perfect either at the apex or base. It is however quite distinct from the other liassic forms with which it is associated. It is from the Upper Lias at Compton.

CERITHIUM CAMERTONENSIS.—Moore.—Plate 4, fig. 9.

Shell narrow, turreted; whorls 8-9, convex, separated by seven transverse granulated striæ, the one in the middle of the whorl having rather larger nodules and being most raised; base with small encircling striæ; columella folded and slightly extended; mouth oval. It approaches closely the *Trochus granuliferus* of Stolitzka, but the whorls are more angular than that species. Length of shell 5 lines, width of body 2 lines.

Of this species we have but one example. It is from the Middle Lias at Camerton.

CERITHIUM LIASSICUM.—Moore.—Plate 4, fig. 16, 17.

Shell small, tapering gradually to an acute apex; whorls 10, flattened, divided by a slight sinus, with, on all but the last whorl, fine encircling transverse striæ, crossed by slightly curved close-set longitudinal nodulated costæ; base with encircling striæ; columella folded with a short canal; aperture small, sub-quadrate.

We have but one specimen of this shell, which we originally considered to be the *Chemnitzia asperula*, but on examination it was found to possess more whorls than that shell, which are flatter and have a more delicate ornamentation. Its aperture however shows it to be quite distinct. It is from the marlstone of Ilminster.

CERITHIUM PYRAMIDALIS.—Moore.—Plate 4, fig. 8.

Shell pyramidal, elongated; whorls numerous, narrow, slightly convex, divided by a small oblique rather waved sinus; each whorl possesses numerous bent longitudinal costæ, which are crossed by very fine transverse striæ, about ten on each whorl, the upper and lower bounding the sinus being largest and slightly nodulated; aperture moderately large and rather ovately elongated.

It is from the marlstone of Ilminster. The only perfect example we possess is 14 lines in length, but we have a portion of larger dimensions.

DISCOHELIX DUNKERI.—Moore.

Plate 5, fig. 28, 29, 29a.

Shell orbicular, depressed, truncated; spire depressed, volutions 7-8, narrow and encircling. The upper surface is flat, with the whorls on the same plane or very slightly concave, the under side presenting a large umbilical opening, within which all the whorls are seen, and the sides of which are step-like and angulated; the edges of each whorl are tuberculated, and both their upper and lower surfaces covered with very fine wavy concentric striæ; towards the aperture the shell is occasionally irregularly costated; aperture broader than deep; back flattened, crossed by curved costæ and fine encircling striæ.

We possess six examples from the Upper Lias of Compton, which, if of the same species, show considerable variety. The genus has been found in the Hierlatz, at May, and Fontaine-etoupe-four, but we are unable to connect our species with either of those from the latter localities. It is named after Von Dunker, by whom the genus was first recognized.

DENTALIUM GRACILE.—Moore.—Plate 5, fig. 23.

Shell thick, elongated, turbular, nearly cylindrical, outer surface smooth.

The only species hitherto figured from the marlstone is the *Dentalium giganteum* of Phillips's Geology of Yorkshire, which also occurs with the above, but from which this little species is clearly distinct. It is from the Middle Lias of Camerton. It is only 8 lines in length by 1 line broad.

DENTALIUM LIASSIUM.—Moore.—Plate 5, fig. 24.

Shell slightly incurved and tapering, thick, outer surface ornamented with about twenty-four longitudinal ridges at rather irregular distances, within which are numerous slightly oblique annular lines of growth; aperture circular.

We possess but one specimen which has lost its apical portion. It is from the Middle Lias of Camerton.

DENTALIUM? TRIGONALIS.—Moore.—Plate 5, fig. 22.

Shell triangular, thick, sheath-like, elongate, smooth, slightly curved, sides flattened, or rather convex, covered by numerous very fine annular oblique concentric striae, every fourth or fifth of which is slightly raised and increased in thickness; section of the shell somewhat triangular, the base being thick, broadest, and with a slight sinus, whilst the opposite or dorsal margin is obtusely angular or carinated; aperture elliptical.

With some doubt we place this curious little shell with *Dentalium*. We possess three examples from the Middle Lias of Camerton, but neither is quite perfect. Like the *Dentalium* they are tubular and appear to have been open at both ends.

NERITOPSIS SPEKEI.—Moore.—Plate 5, fig. 11.

Shell globose, spire depressed; apex obtuse; body whorl inflated, convex, and covered by very close transverse rugose striae, which are decussated by more raised regular longitudinal costae, which are nodulated at their junction. The ornamentation of this shell gives its surface a turberculated appearance.

We possess only two specimens which are on the same block, from the Upper Lias of Kingstone, and being found in a quarry belonging to Wm. Speke, Esq., we have named it in remembrance of his lamented son Capt. Speke.

NERITOPSIS TRANSVERSA.—*Moore.*—Plate 5, fig. 9, 10.

Shell large; spire small, depressed; apex obtuse; volutions 4; the body whorl much enlarged, inflated and produced transversely, its upper area being rather flattened. The surface is ornamented with very numerous fine transverse striations; aperture large, rounded.

We have two examples of this shell, one of which is a cast, whilst the other is wanting its spire, but otherwise has its test preserved, our figures being restorations from them. They are from the Upper Lias near Ilminster.

NERINÆA LIASSICA.—*Moore.*—Plate 6, fig. 30.

Shell small, cylindrical, turreted, excavated; whorls 9, narrow, surrounded by a very projecting transverse carina, flattened both above and below. On the surface of the volutions are also two or three coarse encircling striæ; aperture higher than wide; columella slightly folded.

This little example which is only $2\frac{1}{2}$ lines in length is the only instance we know of the genus in the lias. It was abundant in the great oolite, and two species have been obtained from the inferior oolite. Only one example is known which is from the marlstone at Ilminster.

ONUSTUS SPINOSUS.—*Moore.*—Plate 4, fig. 21.

Shell thin, smooth, conical, elevated; spire with 5 oblique volutions; the angulated surface of the whorls are crossed by somewhat irregular waved longitudinal costæ, which become obtusely spinose at the base of each whorl.

Three examples of this shell are in our museum, one from the Upper Lias of Compton, the others from Ilminster, but neither shewing the aperture. The base of each volution is slightly extended over the succeeding one, and in the lowest fimbriated. In two of our specimens the base of some of the costæ are seen to have projected beyond the margin of the whorls and that they were turbular and spinose, which does not appear to have been noticed by Dr. Deslongchamps, or Dr. Lycett in the species they have described. In the original condition of the shell these must have given it a peculiar appearance.

PLEUROTOMARIA COMPTONENSIS.—*Moore.*

Plate 5, fig. 15.

Shell trochiform, thick, conical; apex acute; whorls angular, with equi-distant transverse striæ; the sinus is small with a

slightly raised band, below which is an encircling rounded rib terminating each volution; the base is rather concave, with distant regular encircling striae. Where the test is best preserved fine longitudinal striae may also be detected.

We possess but one specimen which is from the highest Upper Lias of Compton.

PITONILLUS TURBINATUS.—*Moore*.

Plate 5, fig. 16, 17, 17a.

Shell smooth, pellucid, turbinated, of 6 or 7 convex whorls which are separated by a slight sinus, increasing rather rapidly, the larger being somewhat inflated. The body whorl is separated from the base by a very slight transverse line. The outer portion of the base is flatly convex, with very faint concentric lines. This is bounded by a ridge, within which is an angular circular depression containing the columella and the umbilicus. The columella is very thick, twisted and depressed, terminating in a thickened triangular or rounded knob, from which springs an inner reflected lip which partly covers the umbilical orifice, and joins at its upper part the outer edge of the lip; umbilicus small and partly covered; mouth gaping. Height of shell 6 lines, breadth $5\frac{1}{2}$ lines.

All the specimens we have obtained of this genus are from the Middle Lias of Camerton. In an interesting paper by Von Ferdinand Stoliczka, the *P. conicus*, of D'Orb., is figured and stated to be frequent in the Hierlatz. The genus has also been found by M. Deslongchamps at May, and Fontaine-etoupe-four, in Normandy. From the identification of this genus with other associated gasteropoda in the Middle Lias at Camerton, we are obtaining evidence of the contemporisty of the deposits in these several localities.

PITONILLUS LINCTUS.—*Moore*.—Plate 5, fig. 18, 19.

Shell trochiform, rather small, smooth, shining, conical; volutions 6-7, flattened or slightly convex, narrow, and divided by a small suture with very faint angular lines of growth. The bottom of the larger whorl possesses a slight ridge separating it from a rather flattened base, columella thick, and twisted, bounded by an angular circular depression and folding over a small deltidium.

The above species is well distinguished from the *P. turbinatus* by its more conical form, and by the whorls being much less convex. Its texture is very smooth and crystalline. We

have four specimens, all of which are from the Middle Lias of Camerton. Height $4\frac{1}{2}$ lines, breadth $2\frac{1}{2}$ lines.

PLEUROTOMARIA HELICIFORMIS.—Desl.

Plate 5, fig. 14.

Shell smooth, discoidal, turbinated, depressed; spire obtuse, whorls 5, convex, but slightly flattened on upper surface towards a well-marked rounded sinus. The surface is covered with very close semicircular longitudinal striæ, visible by aid of the lens; fissural band on lower margin of the shell enclosed by two almost obsolete transverse lines. Base of the shell flattened or slightly convex; umbilicus very small or wanting; aperture oblong.

From the marlstone of most localities, and is one of the commonest univalves of this zone. Width 10 lines, length 6 lines.

PLEUROTOMARIA COSTULATUM.—Moore.

Plate 5, fig. 12, 13.

Shell small, discoidal; spire rather small; apex acute; whorls 5, the upper whorls have a carina of nodules rather larger than on the lower; upper part of last whorl flattened or nearly horizontal, with encircling nodulated striæ, with which the convex sides of the whorl are also covered; base flattened or slightly convex with three or four lines of striæ on its outer edge; umbilicus rather small with a channelled edge.

Of this pretty species we possess but one example, which is from the marlstone of Ilminster.

PURPURINA ORNATISSIMA.—Moore.

Plate 5, fig. 20, 21.

Shell rather small, turreted, apex acute; spire with 5 volutions; surface ornamented with numerous prominent transverse striæ, which are crossed by thick raised longitudinal costæ, which disappear on the lower part of the body whorl; lip thin; aperture longitudinally ovate.

This shell is from the marlstone of Ilminster, and is the oldest representative of the genus yet known, none having been hitherto found below the great oolite. It is very rare. After many years examination of the lias, we have only found two specimens; it is 8 lines in length by 6 in breadth.

RIMULA PUNCTATA.—Moore.—Plate 5, fig. 30, 31.

Shell rather small; apex curved posteriorly; sides flattened; with 9–10 prominent rounded ribs, in the interspaces between which are transverse lines of rounded punctuations arranged in pairs.

Of this pretty little shell we have but one specimen which is from the Upper Lias of Compton.

SOLARIUM CRENULATUM.—Moore.

Plate 4, fig. 19, 20.

Shell depressed; spire obtuse; whorls 4 in number. The upper part of the last whorl is separated from a rounded sinus by a line of nodules, below which are three fine transverse lines, followed by two divided angulated carinæ; base of the shell angular with numerous encircling striæ; umbilicus deep, crenulated on the lower margin with eight other finer lines passing round each inner whorl.

This is the earliest example with which we are acquainted of the genus, none having been found below the inferior oolite. It is from the marlstone at Ilminster.

TROCHUS SIMILIS.—Moore.—Plate 4, fig. 22, 23.

Shell small, thick, conical; spire short, acute; of 5 whorls; sides rather angular, having at upper margin next the suture a tuberculated rim, and at the base a rounded carina, between which are depressed longitudinal costæ, which after crossing the carina bifurcate on the base of the shell, uniting again in a nodulated edge surrounding a small round umbilicus. The shell also possesses very fine transverse striæ.

We possess but one specimen which is from the Upper Lias of Ilminster.

TROCHUS FLEXICOSTATUS.—Moore.—Plate 5, fig. 1, 2.

Shell conical, regularly tapering; at the base of each whorl which are 8 in number, there is a slightly projecting rounded rib; on the angular sides of the whorls there are a number of close-set, faint, curved costæ, which on the lower one cross a carina and cover the flattened base; mouth small, depressed; columella small.

We have but two examples of this shell, neither of which is in very good condition. In its general form it resembles the *T. lineatus*, but is to be distinguished from it by its longitudinal curved costæ. From the marlstone of Ilminster.

TROCHUS LINEATUS.—*Moore.*—Plate 5, fig. 3, 4, 4a.

Shell conical, small, tapering to an acute apex, smooth; whorls 9, separated by a very faint transverse line at the base of each whorl. Each whorl is divided rather below the middle by a small transverse sulcation, on each side of which there are also four or five striations, only observable by the lens; base flat, with very fine striæ; mouth depressed; columella slightly extended.

From the marlstone Ilminster, Radstock, and other localities, and is the most abundant of this genus.

TROCHUS PETHERTONENSIS.—*Moore.*—Plate 5, fig. 5, 6.

Shell small, turbinated, depressed; spire short; apex obtuse; whorls 4, the upper part of which is angular or slightly concave, followed on the large whorl by a narrow flattened side. The whole shell is ornamented by bent longitudinal costæ, which on the upper side of the body whorl are slightly nodulated, and cross two slight ridges on the side to an angular base, terminating on the edge of a small umbilicus; columella slightly produced; mouth sub-quadrate.

This shell, which is a well distinguished species, has only been found in the marlstone of South Petherton, and is represented by only two examples.

TROCHUS CARINATUS.—*Moore.*—Plate 4, fig. 24, 25.

Shell small, smooth; spire moderately elevated; whorls 4, the last possessing three transverse encircling carinæ, with a sulcus between the uppermost and a flattened or slightly concave space beneath; upper part of the whorls flattened; base convex, striated; columella slightly extended; umbilicus very small or absent; mouth sub-quadrate.

Of this little species we have but two examples, which are both from the marlstone of Ilminster.

TROCHUS CONCINNUS.—*Moore.*—Plate 4, fig. 28, 29.

Shell small; spire tapering; apex acute; whorls 6, angular, and divided by an angular sinus. The whorls possess transverse lines of crenulated striæ, differing in size, and are terminated at their base by an extended nodular carina. Between the transverse lines are close angular or bifurcating longitudinal striæ; base of the shell covered by concentric striæ, which are decussated by fine longitudinal lines; umbilicus closed; columella slightly elongated.

Of this pretty little species we have but two examples which are from the Middle Lias of Camerton. Length $4\frac{1}{2}$ lines, breadth 3 lines.

TROCHUS NODULATUS.—*Moore.*—Plate 4, fig. 26, 27.

Shell conical; apex rather acute; spire of 8 flattened whorls; sutures indicated by a very slight depression; upper margin of whorls possess a line of transverse nodules which steadily increase in size and width with the growth of the shell; the bottom of the upper whorl is bounded by a smaller line of nodules, which are much increased in size on the last whorl; between the lines of nodules on the flattened surface of the shell are five transverse striæ, slightly cancellated; base of the whorl concave, having on the exterior a row of large nodules, and within numerous concentric striæ; umbilicus small; columella short, recurved; mouth elongated, depressed.

Of this pretty shell we have two examples from the marlstone of Ilminster. Its diameter and height of spire are about 12 lines.

TROCHUS MAMMILARIS.—*Moore.*—Plate 5, fig. 7, 8.

Shell small, turbinated, conical, with 5 rather angular convex volutions; the whorls possess transverse lines of tubercles, which on the body whorl are five in number, the third being most raised. The tubercles on the next whorl are joined by angular longitudinal costæ, giving it a slightly reticulated appearance; base flattened or slightly convex, with five or six tuberculated concentric striæ; small opening, rounded, with lip slightly produced.

Of this little shell, which is from the Middle Lias of Camerton, we have but one example. In its ornamentation it is not unlike the *T. Kochii*, Munst., Goldf. Pet. p. 193, f. 15, but it is more depressed than that shell. Length $2\frac{1}{2}$ lines, breadth $2\frac{1}{2}$ lines.

TURBO NUDUS.—*Moore.*—Plate 6, fig. 25, 26.

Shell nearly smooth, turbinated, spire moderately elevated, with 5 convex whorls, which are separated by a rounded or concave slightly oblique sinus, the last whorl showing longitudinal lines of growth.

This shell is from the marlstone of South Petherton, and Moolham, near Ilminster, where it is rare. By the entire absence of ornamentation it is at once distinguished from the other species with which it is associated.

TURBO CORONATUS.—*Moore.*—Plate 6, fig. 21, 22, 22 ×.

Shell turretted, with moderately elevated spire; apex acute; whorls 5-6, rather concave on the top and having on their sides transverse striæ. The upper portion of each whorl possesses a single more raised tubercular transverse line, beyond which it is angular; base rather flattened, and with encircling striæ; umbilicus rounded; aperture large and rounded.

From the marlstone of Ilminster and South Petherton, where it is rare.

TURBO BIFURCATUS.—*Moore.*—Plate 6, fig. 27, 28.

Shell small, turbinated; spire of 4 volutions, conical, depressed; apex obtuse; upper margin of whorls ornamented by numerous tubercles, from which on the body whorl bifurcating costæ pass towards the umbilicus, and are crossed both on the sides and base by strong transverse encircling striæ; umbilicus small, rounded; aperture large, rather ovate.

Of this pretty shell we have at present but two examples. It is from the Middle Lias of Camerton. Height 2 lines, breadth 2 lines.

TURBO RUGIFERA.—*Moore.*—Plate 6, fig. 23, 24.

Shell turbinated, depressed; apex obtuse; whorls 5, convex; the upper borders are rather flattened or angular; the surface of each whorl is covered with dense granulations, arranged in close encircling transverse lines which are rather widest on the centre, where they are separated by narrow furrows, within which are angular longitudinal lines uniting the granulations. Base of shell rather convex, with encircling striæ, crossed by the longitudinal striæ; umbilicus small; aperture nearly round.

Only one example is known, which is from the marlstone of Ilminster.

TURBO VARIANS.—*Moore.*—Plate 6, fig. 9, 10.

Shell small, turbinated, rather depressed; whorls 5, the uppermost convex, the lower rather angulated; at the bottom it possesses a slight encircling rib, dividing it from an angulated base. The younger whorls have fine transverse striæ, which are not present, or appear obsolete on the body whorl. Aperture sub-quadrate, columella rather thin; no umbilicus.

From the Upper Lias of Ilminster, from whence we have but two examples.

TURBO BERTHOLETI?—D'Orb.—Plate 6, fig. 7, 8.

Shell turreted; volutions 9-10, spirally coiled and turning to the left, divided by a deep angulated suture. About their centre the whorls are furnished with raised tuberculated costæ, which cross longitudinally to an encircling ridge above the suture. The surface is also ornamented by very fine transverse striæ, giving the shell a finely reticulated aspect; umbilicus large, deep; aperture large, round, and reversed.

This interesting species appears to be plenty in the Upper Lias at Compton, five specimens occurring in the same block. It is from the highest bed at that place, and in association with *Ammonites Walcottii*.

TURBO JONESEI.—Moore.—Plate 6, fig. 11.

Shell turreted, tapering; apex acute; volutions 8, having on their centre two raised nodulated transverse carinæ, the lower rather the largest, and between which is a canaliculated area. Above the carina the shell is angulated, and at the base of the whorl is a small encircling nodulated rib. The surface also possesses very fine and close longitudinal striæ.

From the Upper Lias at Compton. We have but two examples, both of which are partly concealed by the matrix and not quite perfect. It is named after our friend the Rev. W. A. Jones, F.G.S., of Taunton, one of the Honorary Secretaries of the Somersetshire Archæological and Natural History Society.

TURBO CONSTRICTUS.—Moore.—Plate 6, fig. 12.

Shell turreted; apex acute; volutions 6-7, step-like. The middle of each whorl possesses a very extended, slightly granulated carina, with an angulated or slightly concave area both above and below; surface of the whorls with fine encircling striæ. The base and aperture are not exposed, and it is therefore referred with a little doubt to *Turbo*.

We have but one specimen which is from the Upper Lias of Ilminster.

TURBO RUTTERI.—Moore.—Plate 6, fig. 29.

Shell thick, turbinated; apex obtuse; volutions 4-5, convex, increasing rapidly, and divided by a rounded suture; sides of the whorls ornamented by numerous transverse striæ, which are very finely nodulated, and crossed by fainter longitudinal striæ, which give the shell a finely reticulated aspect. The ornamentation is the same on the upper as on the body whorl,

though on the latter the nodulated striæ have increased to about fifty in number; base rounded; aperture not exposed.

It is from the Upper Lias of Ilminster, and we have only one specimen.

TURBO POLITA.—*Moore.*—Plate 6, fig. 17, 18.

Shell tapering, with 4 angular whorls, which are separated by a deep transverse angular sinus, within which passes a transverse line of small granulations, the other portions are ornamented by fine transverse lines, which are decussated by still finer close longitudinal lines. Towards the base of each whorl is an elevated carina of minute granulations, from which the longitudinal striæ of the whorls bifurcate. Base of the shell extended, with coarser transverse striæ; mouth of shell rounded or slightly ovate longitudinally; no umbilicus.

Of this pretty shell we possess but one specimen which is from the Middle Lias of Camerton.

TURBO BULLATUS.—*Moore.*—Plate 6, fig. 15, 16.

Shell small, smooth, turbinated, obtuse; whorls 4, convex or inflated; apex of spire obtuse; sutures distinct; base convex, without umbilicus; mouth rounded.

From the Middle Lias of Camerton, where the species appears to be abundant.

TURBO ELEGANTISSIMA.—*Moore.*—Plate 6, fig. 19, 20.

Shell turbinated; apex rather acute; it possesses 6 rounded or convex whorls, the upper parts of which are a little flattened, and are covered by encircling transverse striæ, which are crossed by somewhat oblique equi-distant costæ, which give the shell an ornate appearance; base of the whorls equally concave; umbilicus large; aperture large, rounded.

This pretty little species is somewhat rare. It is from the marlstone of Ilminster. Length of shell 6 lines, width $5\frac{1}{2}$ lines.

TURBO LINEATUS.—*Moore.*—Plate 6, fig. 13, 14.

Shell turbinated, depressed; apex obtuse; volutions 4, whorls very convex, the body whorl being much increased in size, upper part of whorls rather flattened. The whole of the surface of this shell, including its base which is also convex, is covered with fine, close-set, regular transverse lines.

From the marlstone of Ilminster, from whence one specimen has been obtained, and one also from the Upper Lias. Height 6 lines, breadth 7 lines.

TURRITELLA ANOMALA.—*Moore.*—Plate 4, fig. 18.

Shell turreted, tapering, elongate, with 14-15 spiral slowly increasing volutions, which are separated by a well defined concave sinus. The volutions are moderately convex, and covered by distinct concentric striae, which on the lower whorls are 10-12 in number. In its younger state the striae are crossed by raised longitudinal costae, which gradually disappear and become obsolete on the lower whorls. Aperture not exposed.

It is from the Middle Lias of Camerton, and we possess but one specimen.

TURRITELLA SIMILIS.—*Moore.*—Plate 4, fig. 13.

Shell very elongate, tapering to a very acute apex; volutions 21-22, rather convex, but slightly angulated at the base above a distinct encircling suture. The whorls are ornamented by about 10 transverse striae which can only be detected by the lens. Like the *T. anomala*, Moore, the upper whorls are longitudinally costated, and disappear with age. In this species they become obsolete with the fifteenth whorl, those below being smooth.

We possess but one example of this species which is from the Middle Lias of Ilminster. It is quite distinct from the *T. anomala*, in having more flattened whorls with a narrower suture, and the ornamentation is much finer than in that species.

ASTARTE DUPLICATA.—*Moore.*—Plate 7, fig. 18.

Shell sub-trigonal, rather small, convex, marked with concentric lines, usually arranged in pairs, with smaller but more irregular lines in the intermediate grooves; umbones convex, acute; hinge line short; inferior part of sides and front obtusely rounded. The internal border of the shell possesses about thirty crenulations.

This pretty little species is from the marlstone of Ilminster and though not abundant, is more numerous than other species of this genus.

ASTARTE CAMERTONENSIS.—*Moore.*—Plate 7, fig. 21.

Shell sub-quadrate, thick, convex; hinge line extended; umbo depressed, anterior, from which a ridge passes to the posterior frontal margin, dividing the shell into nearly equal parts; anterior end oblique; posterior end angular and sub-truncate, frontal margin nearly straight; surface covered by transverse lines of growth, which are again divided into numerous fine striæ, which curve upwards after crossing the angle on the posterior side.

This shell is well distinguished by its outline from other species with which we are acquainted. It is nearly as broad as long; most convex on the ridge line crossing the shell, beyond which the surface is flattened or angular. It is from the Middle Lias of Camerton.

ASTARTE PARALLELA.—*Moore.*—Plate 7, fig. 19.

Shell rather small, smooth, depressed; umbones rather anterior, close-fitting; lunule small; ventral margin thin, rounded, close-fitting; posterior and anterior margins angulated and oblique. About twenty depressed concentric striæ ornament the surface.

Two examples only are known from the saurian and fish bed of the Upper Lias at Ilminster.

ASTARTE OPPELI.—*Moore.*—Plate 7, fig. 20.

Shell sub-quadrate, thick, convex; umbones nearly central; margins rounded; surface covered with very fine concentric striæ, and possess eight very raised distinct concentric ribs.

But one example of this shell has been found in the Middle Lias of Camerton. It is named after my late friend Dr. Oppel, of Munich.

ARCA INTERRUPTA.—*Moore.*—Plate 7, fig. 13.

Shell rather ovate, convex; umbones anterior, contiguous; hinge line extended; posterior end lengthened, anterior roundly truncated. About half the surface of the shell on the posterior side is furnished with regular distinct oblique longitudinal lines which become fainter on the anterior surface; the posterior angle which is broad and acute possesses several ribs which are also present on the anterior end. There are numerous fine concentric lines, with distinct interrupted lines of growth. A more perfect example than the figure given shews that the posterior end is rather more extended.

Only two specimens are known from the Ilminster Upper Lias.

AVICULA IMBRICATA.—*Moore.*—Plate 7, fig. 23, 24.

Shell very small, longitudinally ovate, moderately convex; umbones prominent, anterior; hinge line extended; ears very unequal, the posterior one with a broad flattened area.

The surface possesses numerous regular oblique longitudinal costæ, which are crossed by concentric lines of growth, giving the shell a scabrous or imbricated appearance. Unlike the *Aviculidæ*, the species appears equivalve.

The shell is from zone *e* of the *leptæna* beds of Ilminster, where only it has yet been found. In our list from these beds it has been given under the name of *A. pygmaea*, but as that name has already been appropriated it has been altered.

CORBULA SOMERSETIENSIS.—*Moore.*—Plate 7, fig. 17.

Shell rather inflated, smooth; umbones prominent, anterior; anterior side and ventral margin rounded, posterior side angulated with a slight concave area separating it from an oblique margin. The dorsal surface possesses about fifty regular transverse ribs, the sides of which are angular, and in the interspaces are other very fine striæ.

This rare shell of which we possess but two examples is from the saurian and fish bed of the Ilminster Upper Lias.

CARDITA LIASIANA.—*Moore.*—Plate 7, fig. 9.

Shell sub-orbicular, convex, a little broader than long; umbones prominent, rather anterior. The surface of the shell is covered by close longitudinal finely tuberculated striæ, amounting to upwards of sixty in number on each valve. Sides and front of the shell regularly rounding; on the interior these are finely crenulated.

This genus which is common in tertiary strata, has not before been recognized below the lower green sand. We believe the *Cardium multicoatum*, Phillips, may belong also to this genus, in which case there are two species present in the Middle Lias.

The species is exceedingly rare. We have never found but a single right valve. From the marlstone of Ilminster.

CUCULLÆA BILINEATA.—*Moore.*—Plate 7, fig. 4.

Shell ovately rhomboidal, ventricose; umbones prominent, rather anterior and somewhat separated; hinge line straight, rather more than half the breadth of the shell; ligamental

area narrow, with transverse striæ; anterior side roundly extended; dorsal margin rather rounded; posterior side angular, separated by an angular sloping carina; dorsal surface covered by very fine longitudinal, slightly waving lines, but more so, and dividing on the anterior side, these are crossed by irregular and distant lines of growth, and also by very fine transverse striæ. The longitudinal striæ on this and other liassic species appear to be arranged in close-set pairs with a slight median groove.

The only described species from the lias is the *C. Munsterii*, Goldf., which occurs with this species, but from which it is well distinguished by its more equilateral and ventricose form, and from its attaining a larger size. It is from the marlstone of Ilminster and other localities.

CUCULLEA TRANSVERSA.—Moore.—N. S.

Shell transversely ovate, inequilateral, ventricose; umbones raised, rather anterior, and widely separated by a deep angular ligamental area; anterior side rounded; dorsal margin curved; posterior side with an oblique carina, beyond which the shell is angular and truncated. The dorsal margin of this species is possessed of strong concentric transverse lines, which being decussated by longitudinal ones, give the shell a somewhat reticulated aspect. From the above characters, by its being more gibbous, and from the concavity and size of the ligamental area it is readily distinguished from the *C. bilineata* and the *C. Munsterii*.

It is from the marlstone of Ilminster and is not uncommon. The figure of this species has unfortunately been omitted from the plate.

CYPRICARDIA PELLUCIDA.—Moore.—Plate 7, fig. 6.

Shell very thin, pellucid, transversely ovate, inequilateral; umbones raised and incurved towards anterior margin; lunule round; hinge line distinct; anterior and ventral margins rounded; posterior angulated and separated from the dorsal surface by an oblique carina, beyond which the shell is angular and truncated. The surface is smooth and possesses very close fine transverse striæ.

Owing to the fragile character of the test we possess but one specimen in which it is preserved, though casts are not unfrequent. It is from the Ilminster marlstone.

CYPRICARDIA INTERMEDIA.—*Moore.*—Plate 7, fig. 5.

Shell very thin, broader than long; very tumid; hinge line obliquely extended posteriorly; umbones very prominent, rather anterior; anterior side concave, but produced and rounded to the ventral margin, which is also somewhat rounded; inferior part of the posterior edge angulated and very acute, divided from the dorsal surface of the shell by a very strong oblique keel.

This species is usually found only in casts. We have but one example with the shell preserved, which is seen to be very thin and fragile. It is from the marlstone of Ilminster.

GERVILLIA INCURVA.—*Moore.*—Plate 7, fig. 12.

Shell rather small, elongated, incurved; umbones terminal, acute; hinge line short and slightly curved; posterior auricle moderately extended. The surface exhibits curved lines of growth which cross the winged area.

From the leptæna beds of the Upper Lias at Ilminster.

GERVILLIA OBLONGA.—*Moore.*—Plate 7, fig. 11.

Shell rather small, ovate, convex; hinge line straight; umbones anterior, rather depressed; anterior ear small, posterior extended, wing-like and attenuated; ventral margin and sides roundly ovate; shell surface with numerous irregular lines of growth which cross the posterior auricle.

Very rare. A single example only has been obtained from the saurian and fish bed of the Upper Lias at Ilminster.

HIPPOPODIUM OVALIS.—*Moore.*

Plate 7, fig. 1, 2.

Shell ovately elongated, thick, ventricose, inequilateral; umbones incurved, anterior; posterior side very elevated and roundly gibbous; posterior end rounded; anterior end rounded and rather attenuated; ventral margin with a deep wide sinus; surface covered by coarse irregular transverse striae, which are interrupted and wavy where they cross the sinus.

Excepting in the upper beds of the Lower Lias, this genus is exceedingly rare, and at most is only represented by two or three species. Our species is from the Ilminster marlstone, and only one specimen has been found.

INOCERAMUS PLICATUS.—*Moore.*—Plate 7, fig. 14.

Shell rather small, ovate, rather convex; umbones terminal, prominent; margins rounded; plications on surface distinct, rather distant.

This species is associated with the *Inoceramus dubius*, Sow., but its very plicated surface separates it from the latter, which is generally smooth, and also attains a much larger size. It is from the Upper Lias of Ilminster, and is rare.

ISOCARDIA LIASSICA.—*Moore.*—Plate 7, fig. 3.

Shell thin, smooth, sub-trigonal, inflated, nearly as thick as long, inequilateral; umbones rather anterior, prominent, incurved; anterior side flattened, cordiform; posterior side rather compressed and angular towards the ventral margin. Surface of the shell covered by very fine regular transverse striæ.

This shell is not uncommon in the marlstone of Ilminster and other localities, but rarely possesses its test. It is somewhat variable in its form, some being less inflated than others and more elongated, and occasionally the valves of the same shell differ in their length.

MODIOLA ORNATA.—*Moore.*—Plate 7, fig. 7.

Shell transversely ovate, gibbous; beaks small, incurved, nearly anterior; pedal region short, rounded; dorsal and posterior margins rounded; middle and ventral margins slightly sinuate; back of the shell diagonally gibbous, and covered by striæ, which pass from the umbo to the dorsal margins and posterior end. A slight sulcus divides the gibbous back from the anterior end, on which the striæ are obsolete. The striæ are crossed by numerous narrow regular lines of growth which give the shell a reticulated aspect.

Of this pretty shell we have six examples from the marlstone of Ilminster. It is associated with the *M. cuneata*, Sow.

MODIOLA DORSO-PLICATA.—*Moore.*—Plate 7, fig. 8.

Shell rather small, thin, elongate, rather cylindrical; umbones sub-terminal, distinct; dorsal margins straight, ventral margin slightly sinuous; the dorsal surface is obtusely keeled and crossed by numerous raised concentric plicæ which bifurcate and pass into very fine striæ on the angle towards the ventral margin.

Three examples have been obtained from the saurian and fish bed at Ilminster.

OPIS CURVIROSTRIS.—Moore.—Plate 7, fig. 22.

Shell thick, sub-trigonal; umbones raised, terminal and curved; lunule rather small, deep, and rounded; the posterior side possesses a raised arched carina; anterior side and surface with distinct transverse or concentric lines, which become finer on the posterior angle after crossing the carina.

This species is from the Middle Lias of Ilminster, and is very rare, only one example having been recognized.

PERNA ANTIQUA.—Moore.—N. S.

Shell large, thin, twice as long as wide; umbones depressed, extending beyond the anterior margin; hinge line broad; surface of the shell smooth, flattened, with irregular lines of growth.

This species is from the marlstone of South Petherton, and measures six inches in length by three in breadth. Only one example is known. The inferior oolite is the lowest formation in which the genus has hitherto been found, this is therefore, the oldest known species. It is remarkable that although this genus has continued to live on from the Middle Lias to the present time, only ten species are recorded in a fossil state.

PINNA HARTMANII.—Ziet.

This shell is abundant in the marlstone, but is rarely to be found except in casts. These are occasionally upwards of a foot in length. The *Pinna folium*, Phillips's Geology of Yorkshire, t. 14, f. 17, is probably identical with this species, and is obtained from the same formation.

POSIDONOMYA BRONNII.—Goldf.—Plate 7, fig. 16.

The abundance of this shell in the Upper Lias clays both in continental and other localities, has suggested for the beds the term *Posidonomya Schiefer*. It is therefore singular that though the leptæna beds at Ilminster represent the same horizon, we have never recognized this shell in them. The example figured is from the saurian and fish bed, and the only one yet seen in the West of England.

PERNA DUBIA.—Moore.—Plate 7, fig. 10.

Shell rather small, sub-quadrate, slightly convex; hinge line straight, slightly extended posteriorly; margins rounded; surface with fine concentric lines of growth.

Three specimens have been found in the leptæna beds of Ilminster.

UNICARDIUM GLOBOSUM.—*Moore*—Plate 7, fig. 15.

Shell globose, equivalve, equilateral; umbones raised, mesial, closely meeting over a short hinge line; margins of the valves more depressed, closely fitting, and regularly rounding. The surface of the valves is covered by close depressed, fine concentric lines.

Only one other species of *Unicardium* has been obtained from the lias. The (*Corbula*) *Unicardium cardioides*, Phillips. This species we have also from the marlstone of Ilminster, and from Limpley Stoke, near Bath. The *U. globosum* is very well distinguished from it in having the umbones much more central and by its less angular and more rounded form, nor does it attain so large a size as the former species.

It is not uncommon in the marlstone of Ilminster, South Petherton, and other localities.

CORRIGENDA ET ADDENDA.

Page 123 *first line, for four, read five or six.*

„ 167 *add to list Turbo Rutteri.*

„ „ „ *Cypricardia pellucida.*

„ 173 „ *Gervillia incurva.*

„ 167 *cancel in list, Turbo Ilminsterensis.*

„ 208 *change Turbo nudus, a name already appropriated, to T. linctus.*

„ 167 & 210 *change Turbo Bertholeti? to T. Hornesi? Stol.*

FORAMINIFERA.

[It is perhaps not worth while to anticipate the publication (by the Palæontographical Society) of a Monograph on British Liassic Foraminifera, by any remarks on the geological or geographical distribution of the species and varieties of which short descriptions are now given. The present synopsis has been drawn up exclusively from the specimens in Mr. Charles Moore's collection, and pertains only to the Upper and Middle Lias marls of a limited area. How wide is the field embraced by the Liassic Protozoa may be judged by the various notes which have from time to time appeared in scientific periodicals since Mr. Moore first directed his attention to the subject. Notwithstanding the occasional contributions of Prof. Rupert Jones, the late Mr. Strickland, and others in this country, and the more extended memoirs of Dr. Bornemann and M. Terquem, on the continent, much is still required to render our knowledge of the group even tolerably complete.

Synonyms have been entirely omitted, but those of the prominent varieties will, in most cases, be found in the "Monograph of the Foraminifera of the Crag" (Palæontographical Society, 1865,) to which work the student is also referred for more detailed information concerning the relationships existing in the important groups of Foraminifera represented in the Liassic strata. H. B. B.]

FORAMINIFERA.

Class.—RHIZOPODA.

Order.—RETICULARIA.—(*Foraminifera.*)

Sub-order.—IMPERFORATA.

Family.—LITUOLIDA, Carpenter.

Genus.—LITUOLA, Lamarck.

Shell free or adherent; one- or many-chambered; straight, scorioid, or spiral; texture coarsely arenaceous; septal aperture single or composite.

1. LITUOLA CENOMANA, D'Orbigny, sp.

Plate 1, fig. 1.

Placopsilina cenomana, D'Orbigny, Prodr. Paléont. Vol. ii, p. 185, No. 758.

Shell adherent, irregular, moniliform; the earlier chambers having a tendency to take a spiral arrangement.

Genus.—TROCHAMMINA, Parker and Jones.

Shell free or attached, variable in form, consisting of one or many chambers; texture arenaceous, the constituent particles embedded in a calcareous cement; surface smooth; septa (in polythalamous varieties) formed by the infolding of the primary shell-wall.

Sub-genus.—WEBBINA, D'Orbigny.

Shell adherent, one- or many-chambered.

1. WEBBINA IRREGULARIS, D'Orbigny.

Plate 1, fig. 2, 3.

Webbina irregularis, D'Orbigny, Foram. Canaries, p. 126, pl. 1, fig. 16—18; and For. Foss. Vien. p. 74, pl. 21, fig. 11, 12.

Shell adherent, moniliform; chambers oval, connected by stoloniferous tubes of variable length.

Sub-order.—PERFORATA.*Family.*—LAGENIDA, Carpenter.*Genus.*—NODOSARIA, Parker and Jones.

Shell straight, arcuate, or disco-spiral; composed of several chambers arranged in one series. Septal orifice single, terminal, either central or excentric; surface smooth, or ornamented with straight, parallel, longitudinal costæ or some modification thereof.

Sub-genus.—NODOSARIA, Lamarck.

Shell cylindrical, straight; smooth or ornamented with ribs, granules or spines; more or less constricted at the septal lines. Pseudopodial aperture simple, central, often pouting.

1. NODOSARIA RADICULA, Linné, sp. Plate 1, fig. 4.
Nautilus radicula, Linné, Syst. Nat. 12 Ed., p. 1164, No. 285.

Surface smooth; chambers few (4 to 8), ventricose.

2. NODOSARIA HUMILIS, Roemer. Plate 1, fig. 5.
Nodosaria humilis, Roemer, Verstein. Norddeutsch. Kreid., p. 95, pl. 15. fig. 6.

Shell short, but little constricted at the septal planes. Composed of three or four short wide chambers; surface smooth.

3. NODOSARIA RAPHANUS, Linné, sp. Plate 1, fig. 6.
Nautilus raphanus, Linné, Syst. Nat. 12th Ed., p. 1164, No. 283.

Shell composed of a few large chambers, ribbed from end to end by stout parallel ridges. The constrictions marking the septal lines often concealed by the overgrowing longitudinal costæ.

4. NODOSARIA RAPHANISTRUM, Linné, sp.
Plate 1, fig. 7.
Nautilus raphanistrum, Linné, Syst. Nat., 12th Ed., p. 1163, No. 282.

Shell long, slender, many-chambered; with numerous, well-defined, parallel, longitudinal costæ.

5. *NODOSARIA PAUCICOSTATA*, Roemer. Plate 1, fig. 8.

Nodosaria paucicostata, Roemer, Verstein. Norddeutsch. Kreid., p. 95, pl. 15, fig. 7.

Shell short, tapering, few-chambered; with five or six stout longitudinal ribs. Constrictions at the septal lines scarcely perceptible.

6. *NODOSARIA HISPIDA*, D'Orbigny. Plate 1, fig. 9.

Nodosaria hispida, D'Orbigny, For. Foss. Vien. p. 35, pl. 1, fig. 24, 25.

Shell many-chambered; chambers oval or sub-spherical connected by stoloniferous tubes of variable length. Surface rough, beset with aciculi, the points of which are often worn off, and in this condition appear like minute tubercles.

Sub-genus.—LINGULINA, D'Orbigny.

Shell straight, compressed. Septal orifice central, oblong.

1. *LINGULINA CARINATA*, D'Orbigny. Plate 1, fig. 10.

Lingulina carinata, D'Orbigny, Ann. Sc. Nat., vol. vii, p. 257; Modèle No. 26.

Shell consisting of several slightly convex segments; septal aperture a narrow slit; margins thin, entire.

2. *LINGULINA TENERA*, Bornemann. Plate 1, fig. 11.

Lingulina tenera, Bornemann, Lias-Formation, p. 38, pl. 3, fig. 24 a—c.

Shell delicate, attenuated, consisting of about six segments; with four to six strong longitudinal ribs at unequal distances from each other; margins but little constricted at the septa.

Sub-genus.—DENTALINA, D'Orbigny.

Shell sub-cylindrical, curved; aperture terminal, central, or but slightly excentric.

1. *DENTALINA COMMUNIS*, D'Orbigny.

Plate 1, fig. 12, 13.

Nodosaria (Dentalina) communis, D'Orbigny, Ann. Sc. Nat., vol. vii, p. 254, No. 35.

Shell elongated, tapering, arcuate; segments numerous, more or less ventricose; septal lines generally oblique; surface smooth.

2. DENTALINA PAUPERATA, *D'Orbigny*.

Plate 1, fig. 14.

Dentalina pauperata, *D'Orbigny*, *For. Foss. Vien.* p. 45, pl. 1, fig. 52—56.

Shell elongated; chambers numerous, the earlier ones cylindrical, and often showing no constrictions at the septa, the later chambers usually somewhat ventricose; surface smooth.

3. DENTALINA PLEBEIA, *Reuss*. Plate 1, fig. 15.*Dentalina plebeia*, *Reuss*, *Zeitsch. Deutsch. Geol. Ges.* vol. vii, p. 267, pl. 8, fig. 9.

Shell sub-cylindrical; chambers numerous, short; septation obscure; the margin of the shell showing no constriction at the septal planes, surface smooth.

4. DENTALINA FILIFORMIS, *D'Orbigny*, sp.

Plate 1, fig. 16.

Nodosaria filiformis, *D'Orbigny*, *Ann. Sc. Nat.*, vol. vii, p. 253; *Soldani*, *Test. ac Zooph.*, vol. iv, pl. 10, fig. e.

Shell attenuated, arcuate, smooth; chambers numerous, cylindrical, much elongated; septa constricted.

5. DENTALINA OBLIQUA, *Linné*, sp. Plate 1, fig. 17.*Nautilus obliquus*, *Linné*, *Syst. Nat.*, 12th Ed., p. 1163, No. 281.

Shell elongated, tapering, somewhat arcuate; chambers numerous, sub-cylindrical, ventricose; surface traversed by numerous, parallel, longitudinal ribs.

Sub-genus.—VAGINULINA, *D'Orbigny*.

Shell elongate, tapering, straight or arcuate, compressed, composed of several oblique segments, arranged in a linear series; septa scarcely at all constricted; aperture marginal.

1. VAGINULINA LEGUMEN, *Linné*, sp. Plate 1, fig. 18.*Nautilus legumen*, *Linné*, *Syst. Nat.*, 10th Ed., p. 711, No. 248.

Shell straight or curved, compressed; chambers compact; septal lines more or less limbate; the surface otherwise smooth.

2. VAGINULINA LEVIGATA, *Roemer*. Plate 1, fig. 19.

Vaginulina levigata, Roemer, Neues Jahrb. 1838, p. 383,
pl. 3, fig. 11.

Shell straight or curved, compressed, without any ornamentation.

3. VAGINULINA STRIATA, *D'Orbigny*, Plate 1, fig. 20.

Vaginulina striata, D'Orbigny, Ann. Sc. Nat., vol. vii,
p. 257, No. 3.

Shell elongated, straight or curved, compressed, traversed by numerous longitudinal, parallel costæ; septation often obscured by the thickened shell-wall.

Sub-genus.—MARGINULINA, *D'Orbigny*.

Shell elongated, sub-cylindrical or flattened, curved and tending towards a spiral arrangement in the earlier chambers; aperture terminal, marginal.

1. MARGINULINA RAPHANUS, *Linné*, sp.

Plate 2, fig. 21.

Nautilus raphanus, Linné, Syst. Nat., 10th Ed., p. 711,
No. 243.

Shell elongated, sub-cylindrical or flattened, usually more or less curved; composed of few stout chambers, usually ventricose; surface having an ornamentation of prominent, parallel ridges. (This is regarded as the type or central form to which all the *Nodosarinae* are referable specifically.)

2. MARGINULINA GLABRA, *D'Orbigny*. Plate 2, fig. 22.

Marginulina glabra, D'Orbigny, Ann. des Sc. Nat., vol. vii,
p. 259, No. 6; Modèles No. 55.

Shell elongated, sub-cylindrical, much curved; surface smooth.

3. MARGINULINA ENSIS, *Reuss*. Plate 2, fig. 23.

Marginulina ensis, Reuss, Verst. Böhm. Kreid., pt. 1,
pp. 29 & 106, pl. 13, fig. 26.

Shell elongated, somewhat compressed, straight or crozier-shaped; early chambers helicoid, later ones in a linear series; septa oblique; surface smooth.

Sub-genus.—PLANULARIA, *D'Orbigny*.

Shell out-spread, thin, composed of numerous short, wide, chambers, arranged in one linear series; chambers oblique; earlier growth of the shell sometimes straight, but usually having a tendency to a spiral form; surface smooth, striate, or costate; aperture marginal.

1. PLANULARIA PAUPERATA, *Parker & Jones*.

Plate 2, fig. 24, 25, (& 26 ?)

Planularia pauperata, Parker & Jones, Quart. Jour. Geol. Soc., vol. xvi, p. 454, pl. 20, fig. 39.

Shell broad, somewhat bi-convex; margin entire; chambers oblique, much curved; surface smooth.

Note.—Figure 25 most resembles the specimens described by Messrs. Parker and Jones, in their paper referred to, on the Chellaston Foraminifera. The larger form (fig. 24) is similar to the varieties found in the Subapennine Tertiary Clays, but scarcely needs a distinct varietal name. In the same way fig. 26 does not exactly correspond with any published figure of a *Planularia*, but is a pretty modification of the helicoid form, having the outer margins of the chambers somewhat raised.

2. PLANULARIA LONGA, *Cornuel*. Plate 2, fig. 27.

Planularia longa, Cornuel, Mém. Soc. Géol. France, 2 Ser., vol. iii, p. 253, pl. 3, fig. 38, 39.

Shell elongated, complanate, very thin; chambers oblique, especially the earlier ones, but slightly ventricose at the margins; surface smooth.

3. PLANULARIA CORNUCOPIÆ, sp. nov.

Plate 2, fig. 28, 29.

Shell elongate, complanate, very thin, the portion formed by the earlier chambers much curved, but with its inner margins free, (not helicoid); outer margin of the shell entire, inner margin often irregular owing to the uneven length of the chambers. Chambers very numerous, curved, more or less wedge-shaped.

4. PLANULARIA BRONNI, *Roemer*. Plate 2, fig. 30.

Planularia Bronni, Roemer, Verstein. Norddeutsch. Kreid., p. 97. pl. 15, fig. 12.

Shell elongate, complanate; earlier chambers somewhat convex and sub-nautiloid; later ones out-spread and thin; chambers oblique, somewhat curved, and often slightly ventricose at their inner margins; surface of the shell covered by delicate, parallel, longitudinal riblets or striæ.

5. *PLANULARIA RETICULATA*, *Cornuel*.

Plate 2, fig. 31—33.

Planularia reticulata, Cornuel, Mém. Soc. Géol. France, 2 ser., vol. iii, p. 253, pl. 4, fig. 1—4.

Shell elongate, thin, tapering, straight or but slightly curved; chambers numerous, oblique, each chamber having numerous, stout, parallel costæ in the direction of the long diameter of the shell; costæ seldom continuous.

6. *PLANULARIA HARPULA*, *D'Orbigny*, sp.

Plate 3, fig. 34, 35.

Marginulina harpula, D'Orbigny, Cours Élém. Paléont., vol. ii, p. 195, fig. 318.

Shell elongate, complanate; chambers numerous, oblique, the earlier ones shorter than those forming the bulk of the shell, and somewhat curved. About one half of the shell (the outer half) traversed by stout parallel longitudinal ribs, the inner half smooth and showing the septation.

Note.—D'Orbigny places this variety under *Marginulina*, but the fine, large, well developed specimens from the Lias are quite *Planularian* in character. After all the sub-generic distinction is artificial.

Sub-genus.—*CRISTELLARIA*, *Lamarck*.

Shell round, disco-spiral, oval, oblong or crozier-like, composed of a single series of chambers, arranged in a spiral of one or more whorls; when in more than a single whorl, each succeeding circle embraces those within; the latter chambers often depart from the spire. Aperture near the outer or convex margin, usually close to it; variable in form.

1. *CRISTELLARIA ROTULATA*, *Lamarck*, sp.

Plate 3, fig. 36.

Lenticulites rotulata, Lamarck, Annales du Muséum, vol. v, p. 188, No. 3.

Shell lenticular, nautiloid, bi-convex, usually having a small circular depression at the umbilicus; edge rounded or sharp, but not keeled; aperture variable.

2. *CRISTELLARIA CULTRATA*, *Montfort*, sp.

Plate 3, fig. 37.

Robulus cultratus, Montfort, Conchyl. Systém., vol. i, p. 214, 54^e genre.

Shell lenticular, nautiloid, bi-convex, often depressed at the

umbilicus, having a thin, well-defined keel, widest at the earliest portion of the outer turn of the spiral, gradually narrowing towards the terminal chamber. Aperture very variable; in typical specimens, triangular, and situated near the margin of the terminal chamber.

3. *CRISTELLARIA ACUTAURICULARIS*, *Fichtel & Moll*, sp.

Plate 3, fig. 38.

Nautilus acutaureicularis, *Fichtel & Moll*, *Testac. Microscop.*
p. 102, pl. 18, fig. *g, h, i*.

Shell oblong or oval, bi-convex, sub-nautiloid; the later chambers projecting beyond the helicoid portion; aperture often pouting; surface smooth.

4. *CRISTELLARIA CREPIDULA*, *Fichtel & Moll*, sp.

Plate 3, fig. 39.

Nautilus crepidula, *Fichtel & Moll*, *Testac. Microscop.*
p. 107, pl. 19, fig. *g, h, i*.

Shell elongated, narrow; earlier chambers minute, helicoid; later chambers much elongated, and reaching nearly or quite to the spiral portion; shell compressed, transparent.

5. *CRISTELLARIA RHOMBOIDEA*, *Czjzek*.

Plate 3, fig. 40—42.

Cristellaria rhomboidea, *Czjzek*, *Haidinger's Nat. Abhandl.*
vol. ii, p. 140, pl. 12, fig. 21, 23.

Shell much elongated, crozier-like, compressed; earlier chambers helicoid, later ones in a straight or curved line; later chambers commonly ventricose, and subject to great irregularity in form and setting on.

Note.—This species may be conveniently taken to comprise a large number of anomalous forms having irregularly connected chambers.

6. *CRISTELLARIA COSTATA*, *D'Orbigny*.

Plate 3, fig. 43.

Cristellaria costata, *D'Orbigny*, *Ann. Sci. Nat.* vol. vii,
p. 292, No 10; *Modèle* No. 84.

Shell oval, compressed, few-chambered, often having a slight keel at the margin of the earlier chambers; septation obscure; surface ornamented by partial, delicate, ridges, parallel to the axis of the shell.

Sub-genus.—FLABELLINA, *D'Orbigny*.

Shell compressed, elongated; earlier chambers spiral in arrangement as in *Cristellaria*, the remainder Δ shaped, each closely applied by its inner margins to the previous chamber, as in *Frondicularia*; aperture at first marginal, ultimately central.

Note.—*Flabellina* gives the connecting links between *Cristellaria* and *Frondicularia*, and like other intermediate forms is very variable. See the figures.

1. FLABELLINA RUGOSA, *D'Orbigny*.

Plate 3, fig. 44—46.

Flabellina rugosa, *D'Orbigny*, Mém. Soc. Géol. France, vol. IV, p. 23, pl. 2, fig. 4—7.

Shell compressed, oblong, oval, or rhomboidal; earlier growth not distinguishable from *Cristellaria*, later chambers Δ shaped, thin, and out-spread.

Sub-genus.—FRONDICULARIA, *DeFrance*.

Shell regular, equilateral, oblong or rhomboidal, much compressed; chambers representing two sides of a triangle, or strongly arcuate.

1. FRONDICULARIA COMPLANATA, *DeFrance*.

Plate 3, fig. 47.

Frondicularia complanata, *DeFrance*, in *Blainville's Dict. Sci. Nat.*, vol. xxxii, p. 178; *Atlas Conch.* pl. 14, fig. 4.

Shell complanate or slightly bi-convex; chambers numerous, the earlier ones swollen; surface smooth.

Note.—Many fine specimens amongst those from the Lias have the margin of each chamber thickened (limbate), forming a sort of border, as in the figure. It seems scarcely necessary to separate these from the sub-type; they resemble most strongly *Fr. canaliculata* of *Reuss*.

2. FRONDICULARIA STRIATULA, *Reuss*.

Plate 3, fig. 48.

Frondicularia striatula, *Reuss*, *Verstein. Böhm. Kreid.*, pt. 1, p. 30, pl. 8, fig. 23, and pt. II, p. 107, pl. 43, fig. 11.

General form as in *Fr. complanata*; surface traversed longitudinally by delicate parallel striae. Sometimes the margin of the chambers are thickened into a raised border, and in these

specimens the ribblets are only found on the depressed portion of the chambers, as in Professor Reuss's figure. When the striation is continuous the septation is obscured thereby.

Genus.—POLYMORPHINA, *D'Orbigny*.

Shell free, spherical or oblong; segments varying in number, obscurely bi-serial, or sometimes in a confused spire, and more or less embracing, sometimes enclosing previous segments; septal lines often depressed; aperture at the extremity of the ultimate chamber, round, usually bordered by minute radiating grooves.

1. POLYMORPHINA LACTEA, *Walker and Jacob*.

Plate 3, fig. 49.

Serpula lactea, Walker & Jacob, in Adams' Essays (Kamachers' Ed.) p. 634, pl. 14, fig. 4.

Shell oval, elongated; chambers few in number; septal lines but slightly depressed.

Note—This is the *Polymorphina Liassica* of Strickland, Q. J. Geol. Soc., vol. ii, p. 30.

2. POLYMORPHINA COMPRESSA, *D'Orbigny*.

Plate 3, fig. 50.

Polymorphina compressa, D'Orbigny, For. Foss. Vien. p. 233, pl. 12, fig. 32—34.

Shell oval or oblong, compressed; chambers bi-serial, long, oblique, ventricose.

PLATES TO ILLUSTRATE
MR. CHARLES MOORE'S PAPER
ON THE
MIDDLE AND UPPER LIAS
OF THE
SOUTH WEST OF ENGLAND.

In each plate, the small lines placed by the figures, are intended to denote their natural size, the magnifying power employed in drawing the Foraminifera (Plates I, II, & III) is stated in the "Explanation of Plates."

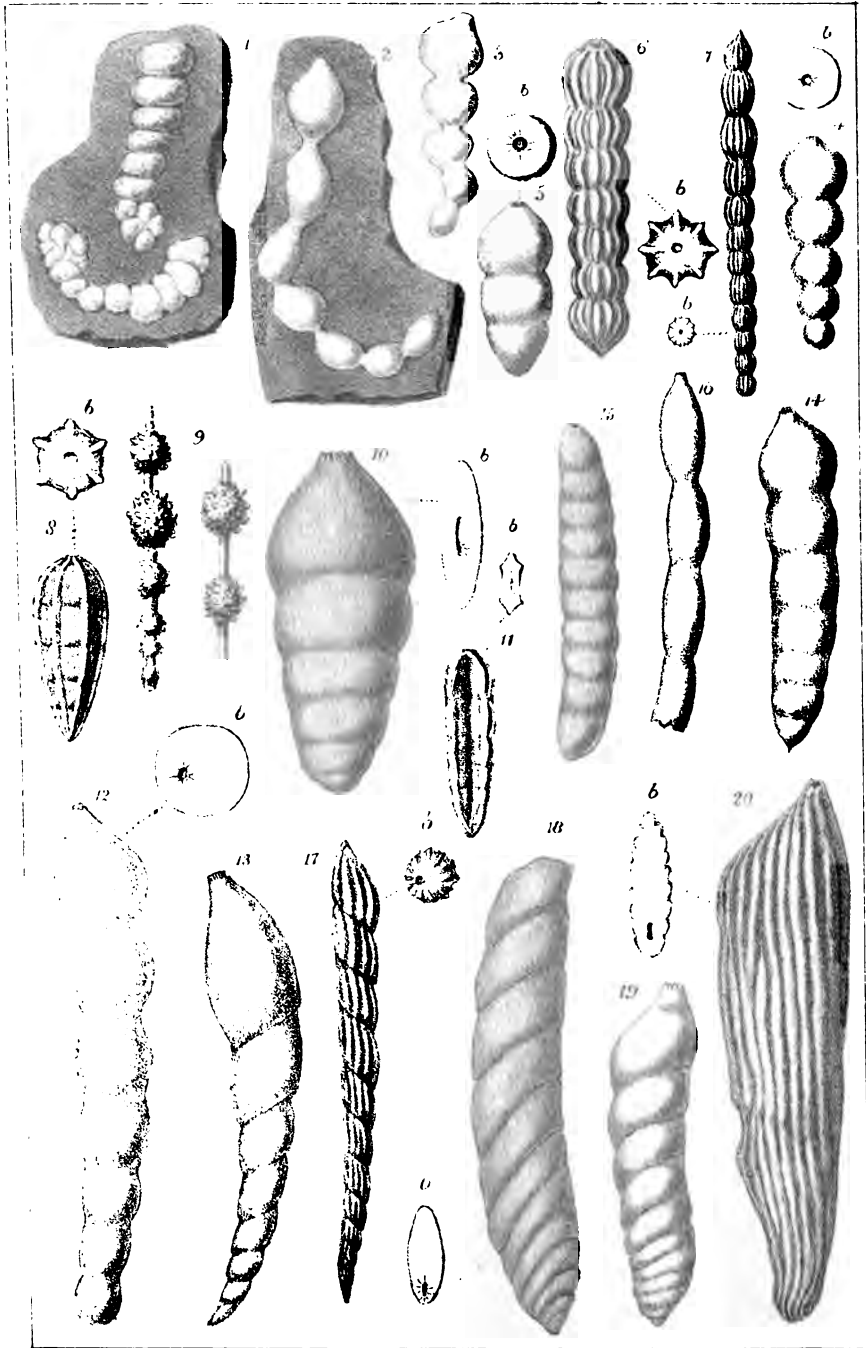
EXPLANATION OF PLATES.

PLATE I.

The reference letter *b* represents the end view of the shell shewing the aperture, except where stated otherwise.

Fig.

1. *Lituola cenomana*, D'Orbigny, sp., magnified 35 diameters.
2. *Webbina irregularis*, D'Orbigny, adherent specimen, 20 diams.
3. " " D'Orbigny, detached specimen, 20 diams.
4. *Nodosaria radícula*, Linné, sp., 35 diams.
5. " *humilis*, Roemer, 35 diams.
6. " *raphanus*, Linné, sp., 35 diams.
7. " *raphanistrum*, Linné, sp., 35 diams.
8. " *paucicostata*, Roemer, 35 diams.
9. " *hispida*, D'Orbigny, 35 diams.
10. *Lingulina carinata*, D'Orbigny, 35 diams.
11. " *tenera*, Bornemann, 35 diams.
12. *Dentalina communis*, D'Orbigny, 35 diams.
13. " " "
14. " *pauperata*, D'Orbigny, 35 diams.
15. " *plebeia*, Reuss, 35 diams.
16. " *filiformis*, D'Orbigny, 35 diams.
17. " *obliqua*, Linné, sp., 35 diams.
18. *Vaginulina legumen*, Linné, sp., 25 diams.
19. " *laevigata*, Roemer, 25 diams.
20. " *striata*, D'Orbigny, 25 diams.



H. P. Brady, del. ad nat.

SOMERSETSHIRE PROCEEDINGS. 1865 6

PLATE II.

Fig.

21. *Marginulina raphanus*, Linné, sp. magnified 25
diameters.
22. „ *glabra*, D'Orbigny, 35 diams.
23. „ *ensis*, Reuss, 35 diams.
24. *Planularia pauperata*, Parker & Jones, (large var.)
25 diams. *b* lateral edge.
25. „ „ 25 diams.
26. „ „ (?) var. 25 diams.
27. „ *longa*, Cornuel, 25 diams. *b* edge view.
28. „ *cornucopiæ*, sp. nov. 25 diams.
29. „ „ 25 diams.
30. „ *Bronni*, Roemer, 25 diams.
31. „ *reticulata*, Cornuel, 25 diams.
32. „ „ „ 25 diams.
33. „ „ „ 25 diams.

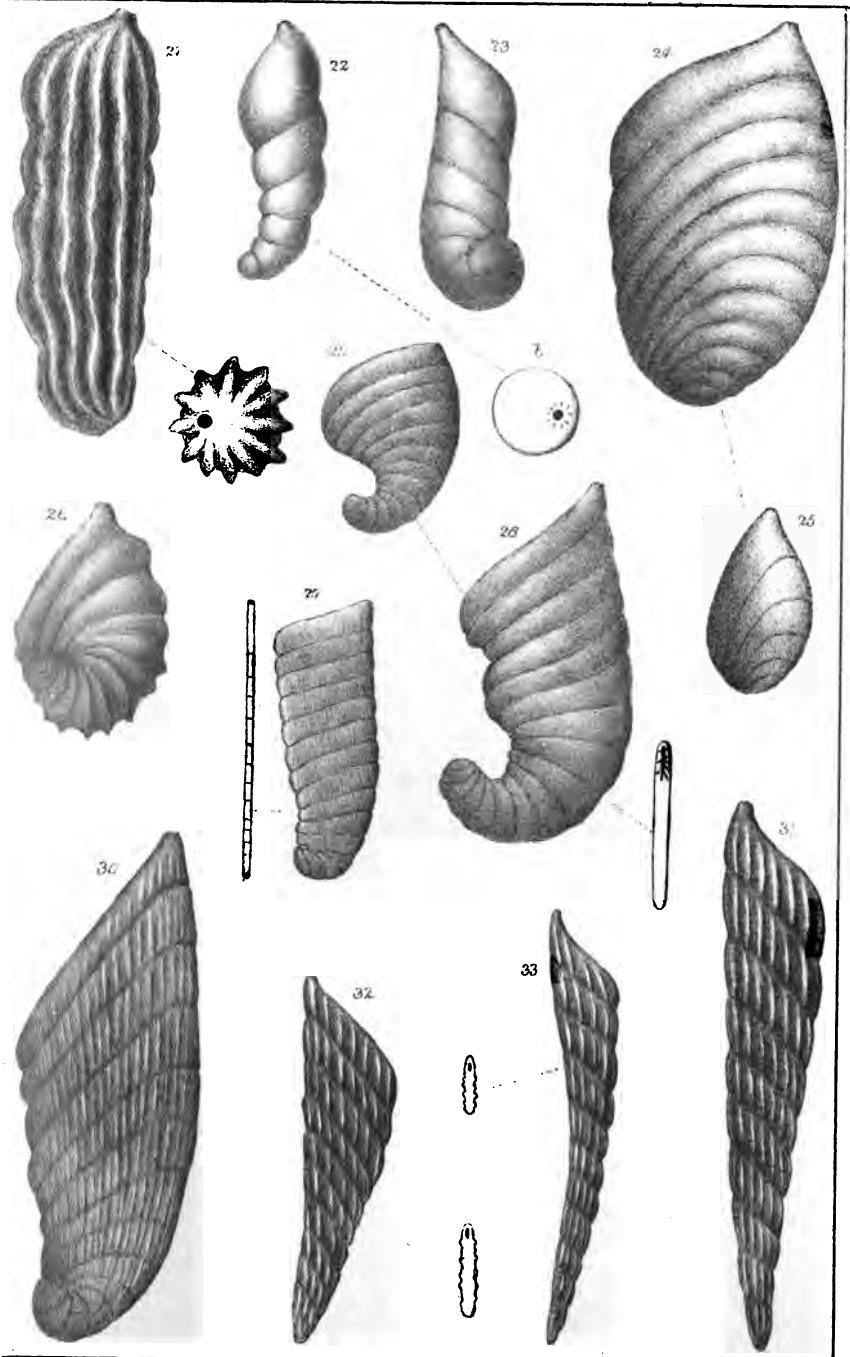


PLATE III.

Fig.

34. *Planularia harpula*, D'Orbigny, sp. magnified 25 diameters.
35. " " D'Orbigny, 25 diams.
36. *Cristellaria rotulata*, Lamarck, sp. 25 diams.
37. " *cultrata*, Montfort, sp. 25 diams.
38. " *acutauricularis*, Fichtel & Moll, sp. 25 diams.
39. " *crepidula*, Fichtel & Moll, sp. 35 diams.
40. " *rhomboidea*, Czjzek, 35 diams.
41. " " " 35 diams.
42. " " " 35 diams.
43. " *costata*, D'Orbigny, 35 diams.
44. *Flabellina rugosa*, D'Orbigny, 35 diams.
45. " " " 35 diams.
46. " " " 35 diams.
47. *Frondicularia complanata*, Def., 35 diams. *b* lateral edge.
48. " *striatula*, Reuss, 35 diams. *b* lateral edge.
49. *Polymorphina lactea*, Walker & Jacob, 75 diams.
50. " *compressa*, D'Orbigny, 75 diams.

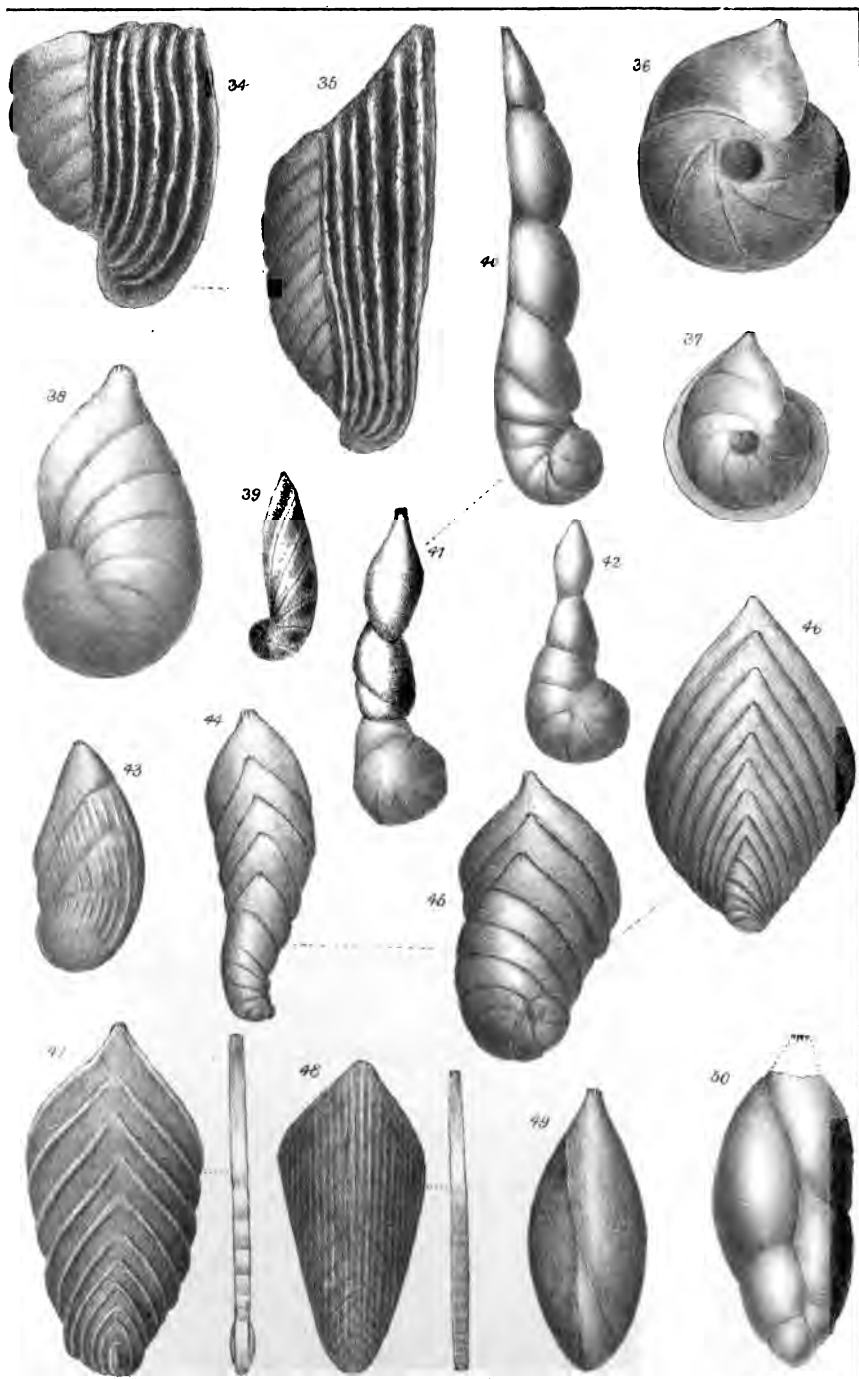
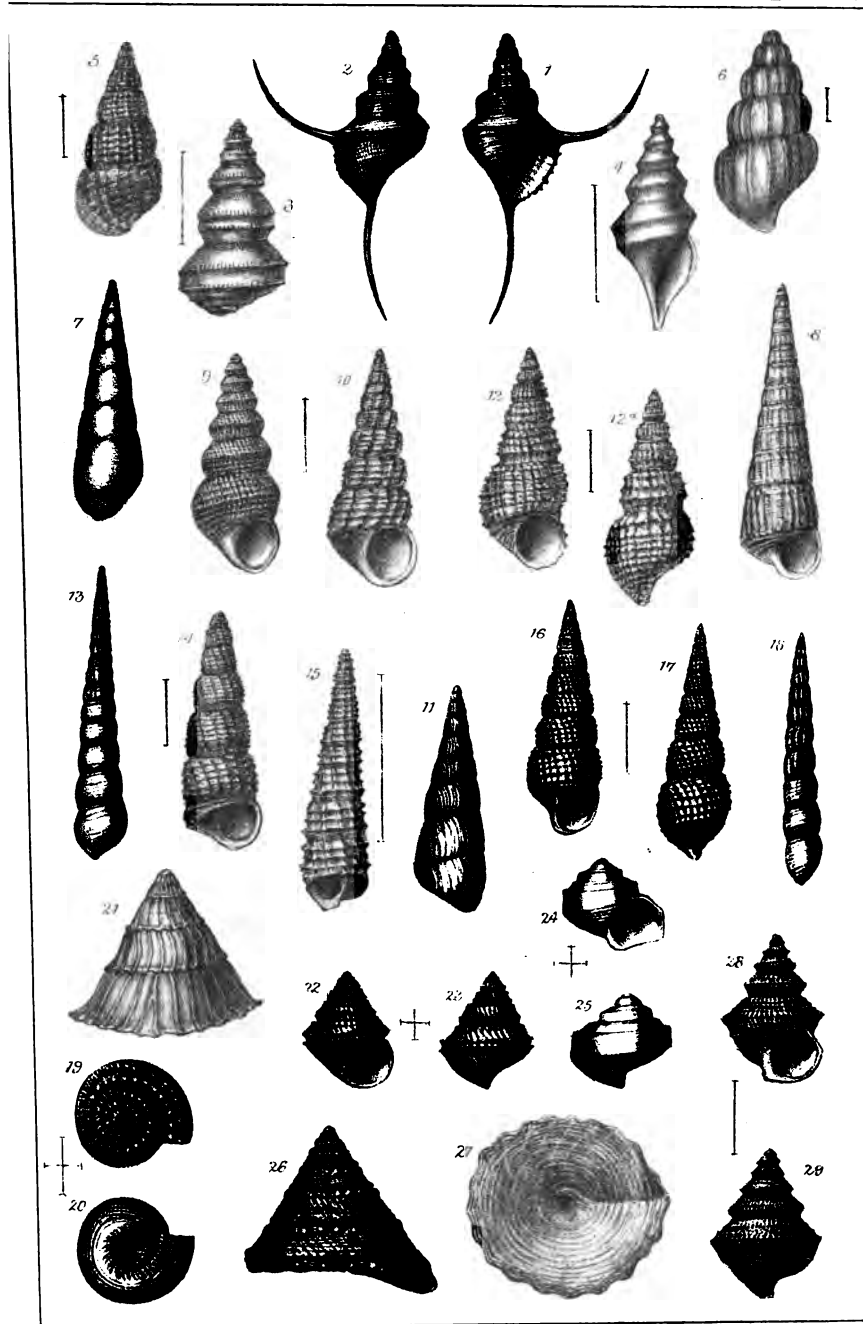


PLATE IV.

Fig.

1. *Alaria unispinosa*, n. s. front view, nat. size.
2. " " back view.
3. " *coronata*, n. s. back view, enlarged.
4. " *angulata*, n. s. front view, enlarged.
5. *Cerithium asperulum*, n. s. back view, enlarged.
6. " *minor*, n. s. back view, enlarged.
7. " *planum*, n. s. back view, nat. size.
8. " *pyramidalis*, n. s. front view, nat. size.
9. " *Camertonensis*, n. s. front view, enlarged.
10. " *gradatum*, n. s. front view, enlarged.
11. " *sub-lineatum*, n. s. back view, nat. size.
12. " *Ilminsterensis*, n. s. front view, enlarged.
- 12a " " back view, enlarged.
13. *Turritella similis*, n. s. back view, nat. size.
14. *Cerithium coronatum*, n. s. front view, enlarged.
15. " *varicosum*, Deal., front view, enlarged.
16. " *hassicum*, n. s. front view, enlarged.
17. " " back view, enlarged.
18. *Turritella anomala*, n. s. back view, nat. size.
19. *Solarium crenulatum*, n. s. top view, enlarged.
20. " " base, enlarged.
21. *Onustus spinosus*, n. s. nat. size.
22. *Trochus similis*, n. s. front view, enlarged.
23. " " back view, enlarged.
24. " *carinatus*, n. s. front view, enlarged.
25. " " back view, enlarged.
26. " *nodulatus*, n. s. front, shewing mouth.
27. " " base, nat. size.
28. " *concinus*, n. s. front view, enlarged.
29. " " back view, enlarged.



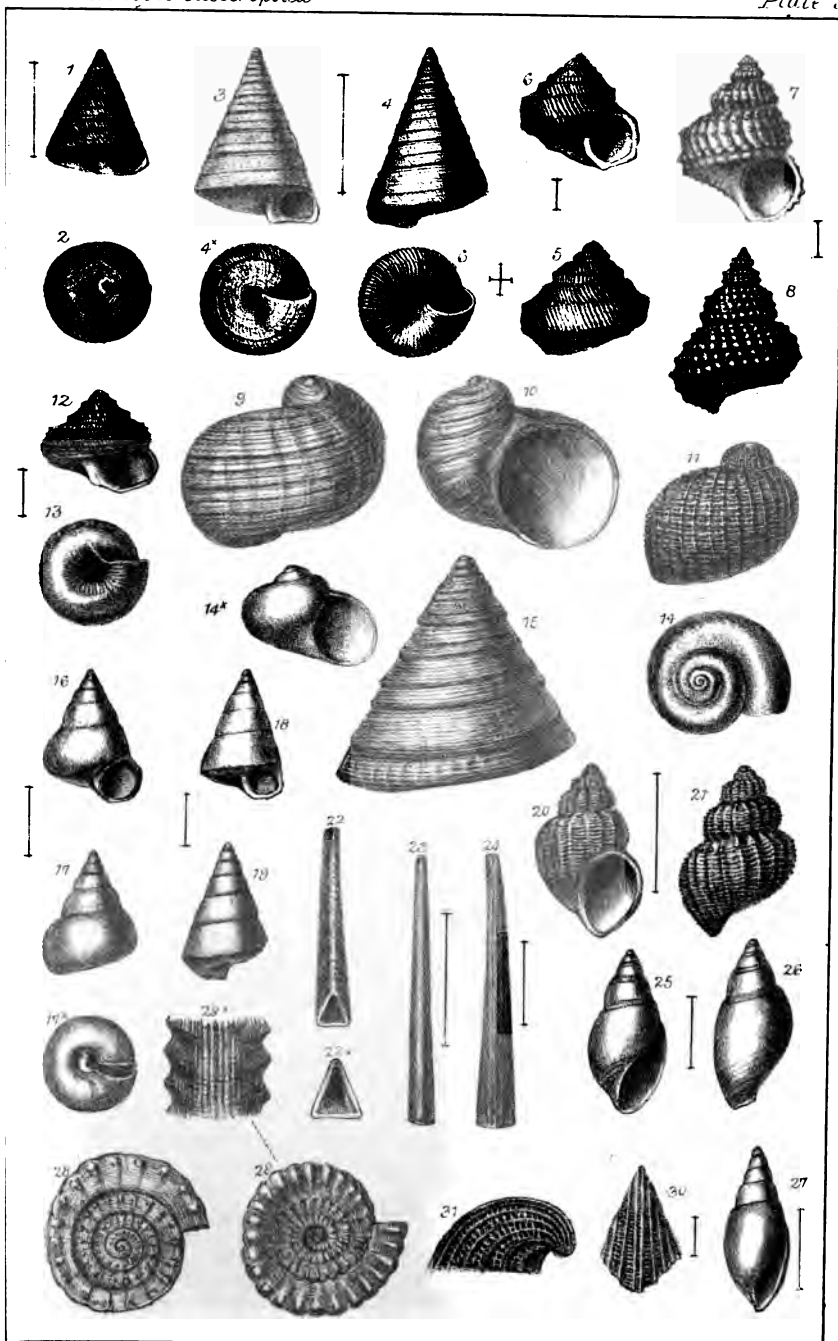
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W West lith.

PLATE V.

Fig.

1. *Trochus flexicostatus*, n. s. front view, enlarged.
2. " " " base.
3. " *lineatus*, n. s. front view, enlarged.
4. " " back view, enlarged.
- 4 × " " base, ditto.
5. " *Pethertonensis*, n. s. back view, enlarged.
6. " " shewing mouth, enlarged.
- 6 × " " base of ditto.
7. " *mammularis*, n. s. front, shewing mouth, enlarged.
8. " " back of ditto.
9. *Neritopsis transversa*, n. s. back view, nat. size.
10. " " front view.
11. " *Spekei*, n. s. back view, rather enlarged.
12. *Pleurotomaria costulatum*, n. s. front view, enlarged.
13. " " base of ditto.
14. " *heliciformis*, Desl., top view.
- 14 × " " front view.
15. " *Comptonensis*, n. s. back view.
16. *Pitonillus turbinatus*, n. s. front view, enlarged.
17. " " back view.
- 17 × " " base of ditto.
18. " *linctus*, n. s. front view, enlarged.
19. " " back view.
20. *Purpurina ornatissima*, n. s. front view, rather enlarged.
21. " " back view.
22. *Dentalium? trigonalis* n. s. rather enlarged.
- 22 × " " triangular aperture, enlarged.
23. " *gracile*, n. s. enlarged.
24. " *liassicum*, n. s. enlarged.
25. *Acteonina Ilminsterensis*, n. s. front view, enlarged.
26. " " back view.
27. *Cylindrites Whitfieldii*, n. s. front view, enlarged.
28. *Discohelix Dunkeri*, n. s. top view.
29. " " shewing base.
- 29 × " " back view, enlarged.
30. *Rimula punctata*, n. s. front view, enlarged.
31. " " side view, enlarged.



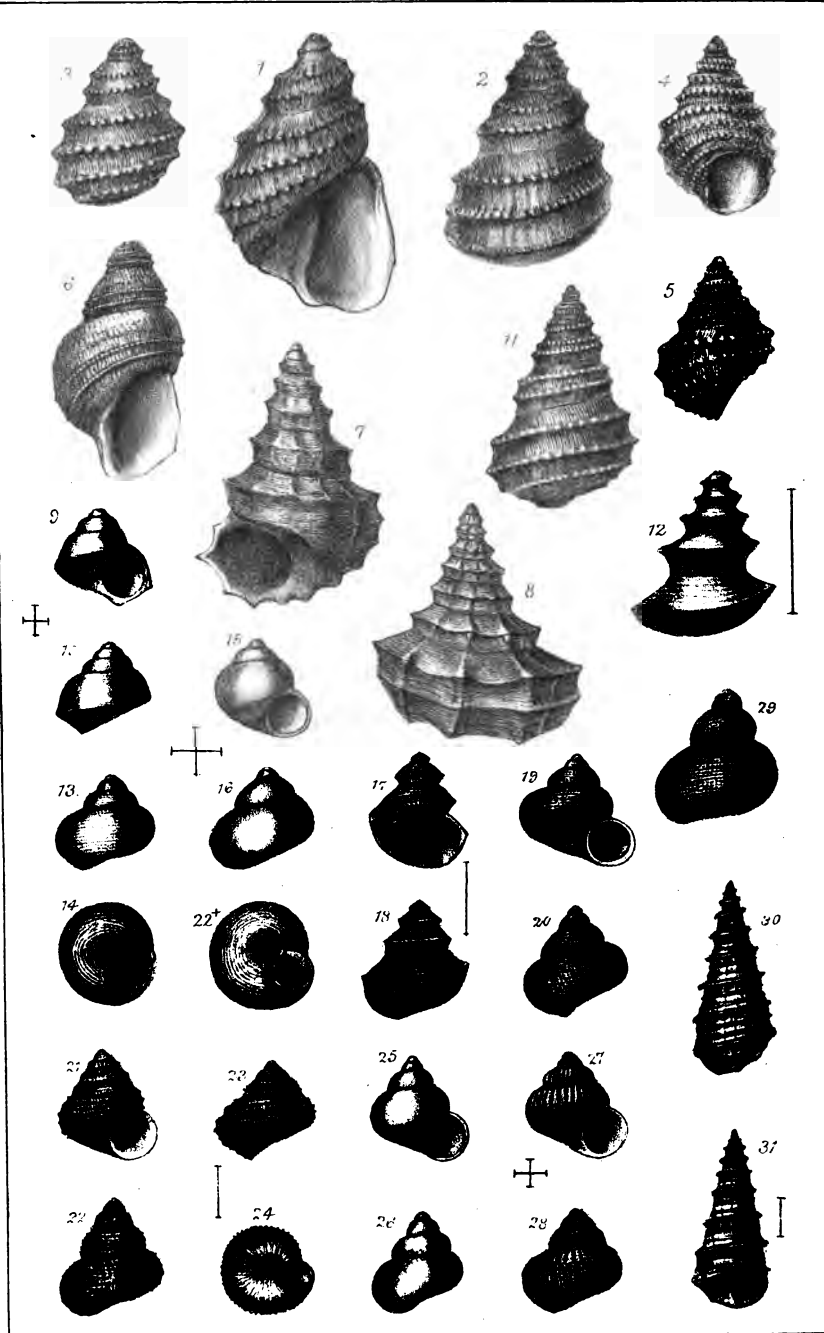
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W. West. Lith.

PLATE VI.

Fig.

1. *Amberleya capitaneus*, shewing mouth, nat. size.
2. " " back view, nat. size.
3. " " ditto, younger specimen.
4. " " front view, from Inferior Oolite.
5. " " back ditto ditto.
6. " *Lycettii*, n. s. front view, nat. size.
7. *Turbo Hornesi*? (v. *T. Bertholeti*), front view, nat. size.
8. " " back view ditto.
9. " *varians*, n. s. front view, enlarged.
10. " " back view, ditto.
11. " *Jonesei*, n. s. front view, nat. size.
12. " *constrictus*, n. s. rather enlarged.
13. " *lineatus*, n. s. back view.
14. " " base of ditto.
15. " *bullatus*, n. s. front view, enlarged.
16. " " base of ditto.
17. " *polita*, n. s. front view, enlarged.
18. " " back view.
19. " *elegantissima*, n. s. shewing mouth.
20. " " back view.
21. " *coronatus*, n. s. front view.
22. " " back view.
- 22 × " " base of ditto.
23. " *rugifera*, n. s. back view, enlarged.
24. " " base of ditto.
25. " *nudus*, n. s. front view.
26. " " back view.
27. " *bifurcatus*, n. s. front view, enlarged.
28. " " back ditto.
29. " *Rutteri*, n. s. back view, nat. size.
30. *Nerinea liassica*, n. s. back view, enlarged.
31. " " front view, enlarged.



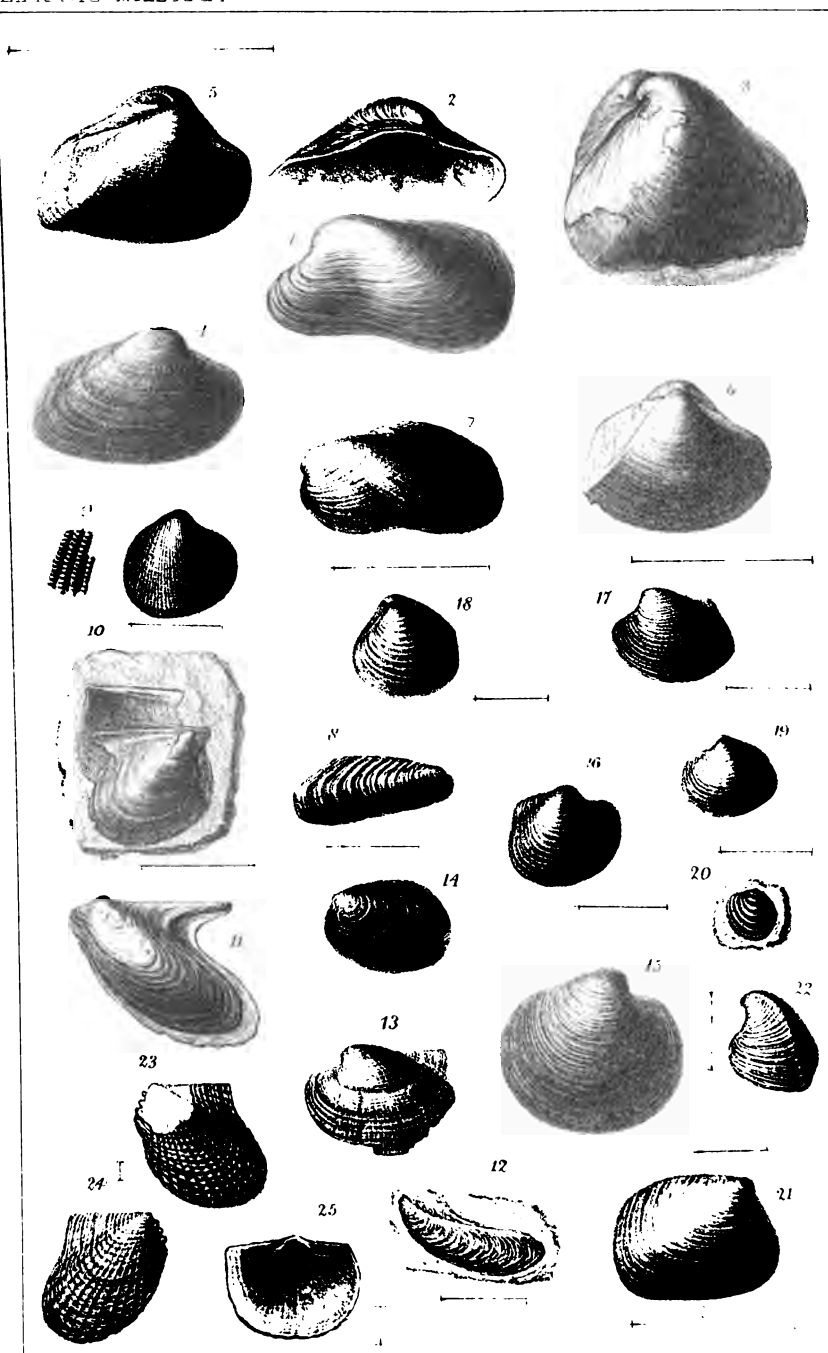
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PLATE VII.

Fig.

1. *Hippopodium ovalis*, n. s. nat. size.
2. " " shewing the ligamental area.
3. *Isocardia liassica*, n. s.
4. *Cucullæa bilineata*, n. s.
5. *Cypricardia intermedia*, n. s. reduced.
6. " *pellucida*, n. s. reduced.
7. *Modiola ornata*, n. s. rather enlarged.
8. " *dorso-plicata*, n. s. enlarged.
9. *Cardita liassiana*, n. s. enlarged.
10. *Perna dubia*, n. s. nat. size.
11. *Gervillia oblonga*, n. s. rather enlarged.
12. " *incurva*, n. s. enlarged.
13. *Arca interrupta*, n. s. nat. size.
14. *Inoceramus plicatus*, n. s.
15. *Unicardium globosum*, n. s. half nat. size.
16. *Posidonomya Bronnii*, Goldf.
17. *Corbula Somersetiensis*, n. s. rather enlarged.
18. *Astarte duplicata*, n. s. rather enlarged.
19. " *parallela*, n. s. nat. size.
20. " *Oppeli*, n. s. nat. size.
21. " *Camertonensis*, n. s. nat. size.
22. *Opis curvirostris*, n. s. rather enlarged.
23. *Avicula imbricata*, n. s. left valve, much enlarged.
24. " " right valve, ditto.
25. ?? Incorrectly drawn.



Introduction to Catalogue of the Pleistocene Mammalia in the Taunton Museum.

BY W. A. SANFORD.

CONTENTS.

- I.—Introduction.
- II.—Classification of the Animals according to their fossil
and present distribution.
- III.—Summary and inferences as to climate.

I.

THE fact, that man has inhabited the earth for a far longer period than the short 6,000 years, which till recently has been supposed to be the past term of his existence, being now firmly established ; it is a matter of great interest to every English student not only of geology but of the early history of our race, to know what was the state of this country at the time when the earliest traces of man occur, as far as at present known ; and among the evidences of that state, the remains of the Mammalia which are found to co-exist with these early remains are not the least important. A subject, which

embraces so great a variety of detail, can only be treated in a paper like this as a summary, and that not of the experience of a single individual, but of the information which has been accumulated by the labours of others for many years. The amount of new matter I can hope to introduce is very small, I may perhaps give a different coloring to the subject, my inductions may not be precisely the same as those of others, but it is only by comparing the opinions, or what amounts to the same thing among those who simply seek for the truth, the experience of workers at a study of this kind, that a true idea of it, or one approaching to the truth can be formed.

Somersetshire is exceedingly rich in the Mammalian remains of this epoch, and thanks to the two energetic collectors of the Mendip, who years ago, when Dr. Buckland was first calling the attention of learned men to the importance of these remains, ransacked the caves of their native hills, and religiously preserved the bones they found therein, our Society has become possessed by the purchase of their collections, of perhaps the most important local collection of Cave Mammalia in existence.

I shall in this introduction do little more than enumerate the animals that are now known to have inhabited England since the first or great glacial submergence, or the period of the boulder clay, and as far as I can see at present, previous to a second cold period of very considerable, though of far less intensity than the first, which was also in the south of England at least, a period of submergence to the extent of perhaps fifty feet or somewhat less. This period would perhaps correspond with the interglacial period of Professor Heer and others, of which clear evidence has been adduced in connexion with ancient glacial phenomena in Switzerland.

I shall omit from the enumeration the Marine Mammalia, of which the evidence is very slight and uncertain, and also all the bats but two, for their remains, though very numerous in the caves, require far more close examination than has been yet given to them to distinguish the various species.

II.

I shall divide these animals into six lists.

- 1.—Those that still exist in these islands.
- 2.—Those that do not exist in Britain, but still are found in Europe.
- 3.—Those that do not exist in Europe, but have their head quarters in Asia.
- 4.—Those that have their head quarters in Africa.
- 5.—Those that are confined to North America.
- 6.—Extinct animals.

And to these I shall add an enumeration of those that now exist in Britain wild, but are not found in the older caves. For although nearly all caves contain bones, and many are perfectly full of them, it is only those, which by direct or collateral evidence, have been shewn to have been filled in the period above alluded to, and the river and other deposits of the same date, that I shall take any notice of in this paper.

The first thing that strikes a student of these remains, is, that so large a proportion of animals still wild in Britain should be found in these deposits. There are at present in the British Isles, excluding as before stated the Marine Mammalia and all but two of the bats, thirty-three species of wild Mammalia.

There are found in the cave and river deposits of this period, the noctule or great bat, the greater horse-shoe bat, our two more common shrew mice, the mole, the

badger, one and perhaps both our native forms of marten,* the polecat,* the stoat or ermine, the otter, the fox, the wild cat, the stag, and the roe, one hare, the rabbit, all our three voles or short tailed beaver-like rodents, one of our common mice, probably *mus sylvestris*, and doubtfully our other shrew, and one other species of hare, and still more doubtfully the wild ox of some of the parks of the North of England and Scotland. Thus, certainly twenty-one, and possibly twenty-four of the forms now living in Britain are identical with those whose remains are found in the deposits of this period. Of the above, the shrew mice, the mole, one marten, and the mouse, and the two doubtful animals, the other shrew, and the second species of hare, have not been recognised in the Somerset deposits of this age.

The next group is that which is no longer found wild in the British Isles, but which still exists in Europe. It contains the brown bear, the glutton, the wolf, the lynx, the elk, the reindeer, the auroch, the wild boar, the common lemming, and the allied *Myodes torquatus* of Northern Russia, the citellus marmot, and I have recently recognised a fourth vole, smaller than our water rat, which appears to be identical with the Swedish *arvicola medius* of Sundevall, among bones from Wookey hyæna den, and the beaver. Of these the lynx, the elk, the common lemming, and the beaver have not been as yet recognised in Somerset. The reindeer presents considerable variation, but the forms appear to merge one into the other, and all into existing varieties of the ordinary *Cervus tarandus*. I

* The *Mustela foina* or beech marten has occurred in a cave in Wales, but it was in such a situation that it might have been introduced subsequently to the Elephants and other bones found in the same cave, among which were polecat bones. (Falconer, Proc. Geol. Soc., 1860, p. 488.)

shall hereafter refer to the oxen of this epoch, as in some sense, they are probably represented by tame, though not wild animals in this section. It will be observed that none of these European animals are at present found to the south of the Alps and Pyrenees, except the large carnivora, and the wild boar. These, however, have always a larger range in latitude than the more exclusively herbivorous animals, and the impress of the whole group rather indicates a cold than a warm climate, though with the exception of the reindeer and the lemmings, not a severe one. We may also remark that the dates of the extinction of the British bear, wolf, wild boar, and beaver, are pretty well made out, so that they rather belong to the first than the second class.

We will now turn to the group which is peculiar to Asia, or is rather found still wild in that continent. The small tailless hare or pika of Kent's Hole is probably identical with one of the Siberian species, the Siberian *spermophilus erythrogenys* cannot be differentiated from the animal whose jaws in the Taunton collection Dr. Falconer named "*erythronoides*," and the *spermophilus superciliosus*, of the same country, has been discovered in considerable numbers rolled up for their last winter's sleep in a brick earth at Fisherton, in Wiltshire, by Dr. Blackmore, to whom we are indebted for the discovery of lemmings in the same locality, and for the recognition of the White Sea lemming or *Myodes torquatus* in Mr. Wickham Flower's collection from Wookey hyæna den. Several forms of horse inhabit the high region to the east of Affghanistan, the Pamir Step, and the Karakorum Chain, the upper parts of the basins of the Jartaxes and Oxus; the kiang is found on the more easterly mountains of Thibet, and there appear to be herds of really wild true

horses in the more elevated parts of the country to the north of the Tian Shan Chain, between Kokand and the country of the Buruts, about the river Ili. It appears from the accounts of travellers in these regions that the horses with short ears and bushy tails inhabit the more rugged and hilly regions, while the long eared forms or wild asses affect the plains. The information we have on these points is rather confused and to a certain extent conflicting.* I have compared some fossil teeth from French caves, and found them closely to resemble those of the kiang, while most of the English specimens are hardly to be distinguished from the common horse. One, or possibly more forms furnish more fossil specimens than any other animals. They must have been abundant in the extreme during the period we treat of. There is some slight reason to believe that in Europe, and even in Britain, horses were really wild since the commencement of the historical period,† so that these fossils may possibly be relegated to our second, if not our first group. The whole of these Asian animals indicate an extreme climate, that is, cold, very cold in winter, but hot in summer, such as is now experienced in Central Asia.

We next turn to the small group, found in our caves, of which Africa is at present the head quarters, that is, the bones found in our caves cannot be differentiated from those of certain African animals.

Then all belong to one genus, the cat. They are the lion, the panther, and a species I have recently recognised, the *Felis caffer*. It was formerly supposed that the large

* A valuable paper on the distribution and breeds or forms of true wild horses, is given by Lieut. Col. Smith, as the Introduction to the Natural History of the Equidæ, Naturalists' Library, Vol. xii., 1841.

† See the paper by Col. Smith, quoted above.

feline of our caves was a species distinct from any now living, but a very minute examination of these remains has convinced Mr. Boyd Dawkins and myself, that a large proportion of them is absolutely indistinguishable from the bones of the average modern lion, and that there is a complete series of specimens connecting these with the largest cave *feles*, and that the two forms, hitherto considered distinct, are identical; we also find that many of the distinctions which were relied on by the first describers of the animal as distinguishing it from lion and tiger, are variable in all the three forms; while others, the most important of which were first pointed out by Professor Owen, in 1834, are perfectly constant, and therefore distinguish this animal from tiger, and identify it with lion. It certainly grew to a larger size, and was more powerful in its limbs than any recent lion we have met with, but this no more constitutes a specific difference, than the limbs of a London dray horse, separate it specifically from the Arab. The existing lion is found throughout Africa, and south western Asia; its northern and eastern boundaries, are the south slope of the Taurus, and southern Persia, M. Vambery appears to have expected them in Mazenderan, but he only found tigers there. I am also informed by a gentleman well acquainted with Persia, that he never heard of lions on the Caspian. They appear to spread through southern Turkistan and Affghanistan to the Paropamisus, and, I believe, but am not certain, that they are found in the upper part of the basins of the Jartaxes and Oxus, but they do not occur in the lists of animals from Kokand or Northern Bokara, or Khiva. They are also found in the lower part of the valley of the Indus and some other parts of eastern India. Within the historic period lions remarkable for their large size, were found in Thessaly,

may not these have been the descendants of the magnificent European breed of the period we write of? It is remarkable that where the lion ends the tiger begins, the latter animal is found to above 50° N. latitude in Siberia, and on the Amour, to the north of China. But the lion, in a thinly peopled country, with abundance of antelopes and wild asses as food, does not appear to pass a limit formed eastward by a mountain chain, and northward, by simply the territory of the tiger. It would appear therefore, that either the tiger were the stronger animal of the two, or that the lion was incapable of bearing the severe winter of Tartary.

The next African animal is the panther. This appears to have much the same range as the lion, it appears however, to be more hardy, as it occurs, though rarely, in the Caucasus, where the lion is never found. It extends further to the eastward than the lion in India, but I have seen some skulls from Eastern India and Malacca which appear to indicate a distinct and representative species, analogous in many respects to the tiger, as the western panther is to the lion. A considerable confusion has been caused by some naturalists, who have considered the ounce of Central Asia, a large felis with a pale grey coat spotted with black, as the young of the panther. This, both as regards the skin and the skull is a very distinct form, perhaps more so than any other of the same size, and this renders the accounts of panther in Central Asia very unreliable, consequently we cannot find the limits of the panther in this direction. The remains of this animal are rare in the British deposits of this period, and are as far as I know confined to the Somerset caves; teeth of a species of nearly similar size are found in an older deposit in Norfolk, but there appear to be points of difference

between it and the true panther, but under the name of *Felis antiqua* the species has been described from the Belgian, French, and Spanish caves.

A large species of wild cat has been several times figured from the Belgian and French caves, and also from Kent's Hole near Torquay, and it has been hitherto considered as a simple variety of the wild cat of Europe. A jaw, however, having the same dimensions as these fossils exists in the Taunton Museum which differs essentially in its characters from that of the wild cat and agrees in every particular with the *Felis Caffer* of Africa, and as far as I have as yet been able to examine, with no other species. I have also found one or two other bones of the skeleton which point in the same direction, consequently I consider that there is good *primâ facie* evidence of the existence of this species in our post glacial deposits.

The range of this animal extends over the whole of Africa, and it is represented by closely allied species throughout Asia, with some of them I have been able to compare the bones in question and they do not agree, but of others, which appear to be more closely allied to *Felis Caffer*, I have only seen the skins, consequently the exact identification of the species must at present remain sub judice.

The present limitation of this group certainly does not point to a cold climate, as that prevailing when it inhabited England.

I now turn to a group which at present inhabits Polar America, and that part of the world alone. It consists of but two animals, the musk ox, or more properly musk sheep, and the Arctic fox. Both animals are of extreme rarity in our deposits, and the musk sheep has not

occurred in the caves. It was clearly a cotemporary of the mammoth in North America and Siberia, for their remains have been frequently found intermingled in the frozen soil on the north coast of both continents, particularly at Escholtz Bay in North America, where the musk sheep has been found of extraordinary size. This animal has been found in this county in the river deposits near Bath, by Mr. Moore. The Arctic fox has been found only twice as yet, but being a small animal, and the teeth resembling those of a small fox, the slight peculiarities, which with the exception of size, differentiate the bones might probably have been overlooked. The only remains of this animal that I have identified are two bones which I found in Wookey hyæna den, in a part of the cave which did not contain any other bones than those of the reindeer, wolf, lemming, the Swedish vole, hare, and only one or two teeth of hyæna, and one or two other small animals, and which appears to have been filled somewhat more recently than the part which contains the great extinct animals, and the more usual cave fauna, and Mr. Boyd Dawkins has found other remains from a cave in Pleasley Vale. One other animal has been recently recognised by Professor Busk in several caves, in fact it appears to be abundant, it is also American, but hardly Arctic and certainly not Polar in its habitat, it is the *Ursus ferox* or great bear of North America. It appears to have been previously described as *Ursus priscus* by Baron Cuvier and Professor Owen, but Professor Busk finds no essential difference between it and the American animal. The musk sheep and Arctic fox never penetrate at present below the latitude of the St. Lawrence, and in fact the musk sheep is confined even in the severest winters to a much higher latitude. The presence of these two

animals, however, in this country indicates a climate at least as severe as that of the colder parts of Canada, and also in consequence of the migratory habits of the animals it indicates that while they lived here, there was a land communication with a country, of a far more rigorous climate in which they could have existed during the summer.

I have not included in the foregoing lists two animals, the *Hyæna spelæa*, and the gigantic *Bos primigaius*, I have but little doubt that the latter is represented by some of its descendants, more or less hybridised by the tame cattle which some migratory tribes of man probably introduced into Europe long after the period we speak of, but still long anterior to historic times. It is therefore somewhat difficult to class this animal with any of the foregoing. With regard to the hyæna, my friend Mr. Boyd Dawkins would consider it simply a variety of the *Hyæna crocuta* of the Cape; I have examined and compared some skulls of both animals and I think the differences which I have made out between them are constant, if so, it will claim rank as a northern representative of the southern *crocuta*, but still a distinct species. This animal was exceedingly abundant in Somerset, and we can exhibit nearly complete skeletons in our collection.

The remaining group are the extinct animals, it is much smaller than is usually supposed, and may be sub-divided into two well marked sub-groups, those having a northern and those a southern distribution as fossils.

The whole of these animals were of very large size, and we observe that, in any country which has been inhabited by only savage men, when civilised man makes his appearance, the larger animals are the first to disappear, so it is probable that when man, weapon armed man, although savage, made his appearance here, the largest and most

powerful animals, which till then had held the upper hand, were the first to suffer; while the more agile and smaller retained there ground. The northern group consists of but two animals, the mammoth and the *Rhinoceros tichorhinus*: they are found to accompany each other over the whole of northern Asia and Europe, and their entire carcasses are not uncommon, with flesh and skin preserved in the frozen gravel of Siberia. These indicate the prevalence during their sojourn here of a rigorous climate, though not necessarily very excessive; like other arctic animals they were probably migratory, and their food is known to have in some cases been the pines which still exist in Siberia. Remains of two or more of the rhinoceros were dug up under the site of the County Prison, at Taunton, surrounded by masses of vegetation of the same species as now flourish on the banks of the same stream which probably swamped them. Almost as numerous as the remains of the mammoth, are those of another elephant of much larger size, the *Elephas antiquus*. This from the remains at Taunton is known to have reached the height of fifteen feet, and this is frequently accompanied by a second rhinoceros, the *Rhinoceros leptorhinus*. Both these animals are of decidedly southern distribution, the two species of rhinoceros seldom occurring in the same place, though the two elephants do. This would rather point to the fact that the climate varied considerably, and that at one time it was fit for the northern, and at another for the southern group. It would appear that the northern or mammoth group lasted later in this country than the southern, and the presence of the Arctic fox in a deposit, which appears to be slightly newer than that which contains the mammoth in Wookey hyæna den, would seem to shew that the close of the mammoth period was colder than the principal portion of it. To this southern

group belongs the great hippopotamus. This was, though not abundant, at least a general inhabitant of this country during a portion of this period. If it was not migratory it must have had open water in the rivers throughout the year; and as it is found far inland, and far from any marine deposits of this age, it does not, as has been supposed, appear to have been a marine species. The residence of this animal throughout the year would indicate a climate not colder than the south of France during its sojourn.

The great Irish elk appears to have had its head quarters in these islands, particularly in Ireland; its remains are not very abundant in Somerset.

The great cave bear was an animal of vast power, its remains are universal in the older European caves, it has been divided into several species, and a second species of bear has been founded on some smaller bones, but we find that the variations of the individuals of both recent and fossil species are so extensive that an entire revision of the osteological characters of the whole group is necessary before we can pronounce with certainty on the value of characters which have been assumed to be specific.

The remaining extinct animal has been found in Kent's Hole in Devon alone, it is the *Machairodus latidens*, an extraordinary sabre toothed feline of which only some of the teeth are known; allied animals, however, from France, Germany, and South America have thrown some light on its structure, but still too little of it is known to pronounce with confidence on its nature and habits, some of the bones from America seem to indicate great swimming powers, it may have been a water tiger.

Of the above animals the *Machairodus* and *Hippopotamus* have not to my knowledge occurred in this county, but the *Hippopotamus* has been found at Bristol, on the opposite side of the Avon, and also in Devon and Wales.

The animals of which we have to observe the absence ; we may remark, that up to the present, no species of sheep, goat, or antelope, except the ovibos, has been discovered in the more ancient deposits, though a species of goat has been found both in this county and in Yorkshire, in caves which are probably of the oldest pre-historic date. No trace of chamois, bouquetin, argali, mouflon, saiga, or *Antilope gutturosa* occurs, though these animals, all of them of considerable size, are now spread over tracts which are still inhabited by other animals which are found in the deposits we treat of. It is difficult to account for their absence, except by that strange, and at present somewhat mysterious law, which appears to bind certain closely related species of animals to particular parallels of longitude, which they appear never to pass, and of which some most extraordinary instances are related as occurring in Central Asia, by M. Vadikof. The only British wild animals that are missing, are all of small size and might hitherto have been overlooked, except two, the date of whose introduction is pretty well known, our black and common rats. The others are the hedgehog, perhaps one shrew, the squirrel, the dormouse, our house-mouse, and harvest-mouse, perhaps one or two forms of hare, and the little weasel. The arboreal habits of some of these, is an excellent reason why they should not occur in a fossil state. The others, or some of them will probably occur at no distant date.

III.

The principal fact then, which is proved by this examination of the cave fauna, is, its eminently European character. Of forty-four animals which are found in the caves, and other deposits of the period we treat of, twenty-one are British, and thirty-four and perhaps thirty-five are European ; and if the doubtful species are included, the

fossil animals will be forty-seven, of which twenty-four will be British, and thirty-seven or perhaps thirty-eight European; three or perhaps four are exclusively Asiatic; three have their head quarters in Africa; and three are American; while only ten and perhaps eleven are certainly extinct; and two others may probably be reckoned in the same category. Some modification may perhaps be expected in some of the above determinations, particularly as regards the wolf, the fox, the bear, the wild boar, and the oxen, and perhaps also the deer. I do not believe that the *Elephas meridionalis*, or great Italian elephant, has occurred in this country in the deposits we speak of, or with the remains of man, and in the same category we must place *Rhinoceros megarhinus*, though both existed in this country previous to the glacial submergence, and have been elsewhere found accompanied by traces of the human race.

The inferences which I draw of the nature of the climate from the distribution, both past and present of these remains, is, as may be seen, somewhat different from that which has been most generally supposed. The occurrence of the Polar and Arctic mammalia in these deposits has been held to indicate a very severe climate gradually moderating from the period of intense glaciation to the present. From the analysis I have sketched out, it would appear that the strictly Polar animals were of the greatest rarity, and that they belong to migratory species, and the same may be said of the more Arctic forms, excepting that the reindeer was undoubtedly common. I have shewn also, that the great majority of the animals are of strictly mid European types, and they were accompanied by others, both of extinct and recent forms which have a southern rather than a northern distribution, and that one of these, unless it was migratory, and it was ill-fitted for migration,

must have required open water throughout the year, during its sojourn ; and that there is good evidence that the vegetation of this period was, in the Vale of Taunton, at least, identical with that now prevailing ; that in extreme North America a more abundant shrubby vegetation there existed, than now prevails. And lastly, that the reindeer became more abundant towards the close of the period when the larger animals became rare and disappeared, and that, in one instance at least, of the occurrence of the Arctic fox, there is reason to suppose that it was somewhat posterior in time to the elephant and rhinoceros found in the same cave. So that in place of a climate gradually moderating from a period of intense glaciation, we have rather evidence of a climate for the most part that of mid Europe, with a still warmer temperature during a portion of the period, which however terminated by a second lowering of the temperature, so that that the climate of France became fit for the reindeer, to the exclusion of most of the other large herbivora. The man of this reindeer period was probably in a state of civilization, but little inferior to that of the Esquimaux, and recent discoveries in Kent's Hole seem, though rather doubtfully, to shew that the men of the still earlier mammoth period possessed the art of making implements of bone and stone not inferior to that people.

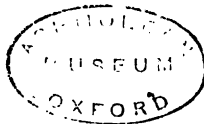
Owing to unavoidable circumstances the publication of the first part of the Catalogue is postponed till the issue of the next Volume.

Notice of a Burial by Cremation,
of the Bronze Period,
in the Parish of West Buckland.

BY W. A. SANFORD.

IN the last week in September of the year 1867, some men were digging a drain on Ash Farm, in the parish of West Buckland, and found the remains described below. The drain is cut through the flat alluvium of the River Tone, on the south bank. The soil is a somewhat incoherent mixture of gravel and clay, resting at the depth of about three feet six inches on a bed of hard compact gravel; the drain is sunk to the level of the gravel. At about one hundred and sixty yards from the river the men found that the earth had been previously moved, and at the depth of three feet came upon a very fine bronze torque, and close under it, upon two large bronze axes of the usual form, one of them having two rings for the binding thongs, and the other one ring, and under these again two pieces of a bronze armlet of very elegant pattern. I searched the stuff thrown out, and found another piece of the armlet, and a quantity of charcoal, and some fragments of burnt bone. The gravel bed had been disturbed to the

depth of six inches. The pattern of the armlet was a broad flat ring, one inch wide, with a lap, in order to enable it to enlarge and slip over the hand ; the edges were flattened and raised into ridges, other ridges were raised on the ring about three sixteenths of an inch from the edges, and the space between these was ornamented with a row of large bosses, much in the same way that carbuncles are frequently set in ladies' bracelets at present. Between each two bosses there are two raised triangular ornaments, and the narrow spaces between the ridges and the bosses are ornamented by four lines of minute indentations, the finish of the whole is quite equal to good goldsmiths' work. The torque is of the usual twisted form and is beautifully finished. The axes are all but perfect and have been very little used. I have no doubt that we have here an instance of a burial by cremation of the bronze period, in a low flat spot, without the slightest indication of a tumulus or external grave.



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and
Natural History Society.
1867.

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 De Morgan, A., Esq., *Prof. Mathematics*, University College,
 London.
 Dimock, Rev. J. F.
 Ferrey, B., Esq., Charing-Cross, London.
 Godwin, George, Esq., F.R.S., F.S.A., Brompton.
 Green, Rev. J. R., St. Philip's, Stepney, London.
 Hardwick, P. C., Esq., Russell-square, London.
 Hugo, Rev. Thomas, F.S.A., The Chestnuts, Clapton, London.
 Lloyd, Dr., *Sec. Archaeological and Natural History Society*,
 Warwick.
 Owen, R., Esq., M.D., F.R.S., &c., *Head of Natural History*
Department, British Museum.
 Parker, J. H., Esq., Oxford.
 Petit, Rev. T. L.
 Phillipps, Sir Thomas, Bart., Middlehill, Worcester.
 Ramsay, A. C., Esq., F.R.S., *Professor of Geology*, School of
 Mines, London.
 Salter, J. W., Esq., F.G.S., Museum of Practical Geology.
 Sedgwick, Rev. A., F.R.S., F.G.S., *Woodwardian Professor of*
Geology, Cambridge.
 Smith, C. Roach, Esq., F.S.A., Strood, Rochester.
 Stubbs, Rev. W., B.A., Navestock, Essex.
 Williams, Rev. George.
 Willis, Rev. R., F.R.S., F.G.S., *Jacksonian Professor*, Cambridge.
 Wilson, Daniel, Esq., *Professor of English Literature*, Toronto,
 Canada.
 Yates, J., Esq., F.R.S., F.G.S., Lauderdale House, Highgate.

Societies in Correspondence

With the Somersetshire Archæological and Natural History Society.

- The Archæological Institute of Great Britain.*
The Ecclesiological Society.
The Bristol and West of England Architectural Society.
The Associated Architectural Societies of Northampton, &c., &c.
The Sussex Archæological Society.
The British Archæological Association.
The Surrey Archæological Society.
The Kilkenny and South-East of Ireland Archæological Society.
The Suffolk Institute of Archæology and Natural History.
Société Vaudoise des Sciences Naturelles, Lausanne.
The Lancashire Historic Society.
The Chester Local Archæological Society.
The Society of Antiquaries.
The Wiltshire Archæological and Natural History Society.
University College, Toronto.
Smithsonian Institution, Washington, U.S.
Imperial and Royal Geographical Society of Vienna.
Society of Antiquaries of Scotland.
Literary and Philosophical Society of Manchester.
The London and Middlesex Archæological Society.
The Royal Dublin Society.
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Rules.

THIS Society shall be denominated "THE SOMERSETSHIRE ARCHÆOLOGICAL AND NATURAL HISTORY SOCIETY;" and its object shall be the cultivation of, and collecting information on, Archæology and Natural History in their various branches, but more particularly in connection with the County of Somerset.

II.—The Society shall consist of a Patron, elected for life; a President; Vice-Presidents; General, and District or Local Secretaries; and a Treasurer, elected at each Anniversary Meeting; with a Committee of twelve, six of whom shall go out annually by rotation, but may be re-elected. No person shall be elected on the Committee until he shall have been six months a Member of the Society.

III.—Anniversary General Meetings shall be held for the purpose of electing the Officers, of receiving the Report of the Committee for the past year, and of transacting all other necessary business, at such time and place as the Committee shall appoint, of which Meetings three weeks' notice shall be given to the Members.

IV.—There shall also be a General Meeting, fixed by the Committee, for the purpose of receiving Reports, reading Papers, and transacting business. All Members shall have the privilege of introducing one friend to the Anniversary and General Meetings.

V.—The Committee is empowered to call Special Meetings of the Society upon receiving a requisition signed by ten Members. Three weeks' notice of such Special Meeting and its object shall be given to each Member.

VI.—The affairs of the Society shall be directed by the Committee (of which the Officers of the Society shall be *ex-officio* Members) which shall hold Monthly Meetings for receiving Reports from the Secretaries and sub-Committees, and for transacting other necessary business; five of the Committee shall be a quorum. Members may attend the Monthly Committee Meetings after the official business has been transacted.

VII.—The Chairman, at Meetings of the Society, shall have a casting vote in addition to his vote as a Member.

VIII.—One (at least) of the Secretaries shall attend each Meeting, and shall keep a record of its proceedings. All Manuscripts and Communications and the other property of the Society shall be under the charge of the Secretaries.

IX.—Candidates for admission as Members shall be proposed by two Members at any of the General or Committee Meetings, and the election shall be determined by ballot at the next Committee or General Meeting; three-fourths of the Members present balloting shall elect. The Rules of the Society shall be subscribed by every person becoming a Member.

X.—Ladies shall be eligible as Members of the Society without ballot, being proposed by two Members and approved by the majority of the Meeting.

XI.—Each Member shall pay Ten Shillings on admission to

the Society and Ten Shillings as an Annual Subscription, which shall become due on the 1st of January in each year, and shall be paid in advance.

XII.—Donors of Ten Guineas or upwards shall be Members for life.

XIII.—At General Meetings of the Society the Committee may recommend persons to be balloted for as Honorary or Corresponding Members.

XIV.—When any office shall become vacant or any new appointment shall be requisite, the Committee shall have power to fill up the same; such appointments shall remain in force only till the next General Meeting, when they shall be either confirmed or annulled.

XV.—The Treasurer shall receive all Subscriptions and Donations made to the Society, and shall pay all accounts passed by the Committee; he shall keep a book of receipts and payments which he shall produce whenever the Committee shall require it; the accounts shall be audited previously to the Anniversary Meeting by two Members of the Committee chosen for that purpose, and an abstract of them shall be read at the Meeting.

XVI.—No change shall be made in the Laws of the Society except at a General or Special Meeting, at which twelve Members at least shall be present. Of the proposed change a month's notice shall be given to the Secretaries, who shall communicate the same to each Member three weeks' before the Meeting.

XVII.—Papers read at Meetings of the Society and considered by the Committee of sufficient interest for publication shall be forwarded (with the author's consent) to such periodical as shall be determined by the Committee to be the best for the purpose, with a request that a number of such papers may be printed separately, for distribution to the Members of the Society, either gratuitously or for such payment as may be agreed on.

XVIII.—No religious or political discussions shall be permitted at Meetings of the Society.

XIX.—That any persons contributing Books or Specimens to the Museum shall be at liberty to resume possession of them.

in the event of the property of the Society ever being sold or transferred to any other county. Also, persons shall have liberty to deposit Books or Specimens for a specific time only.

N.B.—One of the objects of the Society shall be to collect, by donation or purchase, a Library and Museum, more particularly illustrating the History (Natural, Civil, and Ecclesiastical,) of the County of Somerset.

* * *It is requested that Contributions to the Museum or Library be sent to the Curator, at the Society's Rooms, Taunton.*

List of Members.

1867.

Those marked * are Life Members.

- Acland, Sir P. P., Bart., *Fairfield House*.
 Acland, Sir T. D., Bart., *Killerton Park, Devon*.
 Acland, T. D., M.P., *Spreydoncote, Devon*.
 Acres, Rev. J., *Clevedon*.
 5 Addington, H. J., *Langford, Bristol*.
 Adlam, William, *Manor House, Chew Magna, Bristol*.
 Alford, H., *Taunton*.
 Alford, H. J., "
 Allen, J. R., *Lyngford Cottage*.
 10 Allen, Rev. C. J., *Stockinch, near Ilminster*.
 Anstice, Rev. J. B., *Hungerford Vicarage*.
 Auckland, the Right Rev. Lord, Bishop of Bath
 and Wells, *Palace, Wells*.
 Badcock, H., *Wheatleigh Lodge, Taunton*.
 Badcock, R. G., *The Elms*, "
 15 Bagehot, Edward, *Langport*.
 Bagehot, Walter, "
 Bagehot, Watson, *Heale, Curry Rivel*.
 Bailey, Robert, *Taunton*.
 Bailward, J., *Horsington, Wincanton*.
 20 Baker, John, *Weston-super-Mare*.
 Baker, C. Gifford, *Seaton, Devon*.
 Baker, Rev. F. Walter, *Rectory, Beaulieu, Hants*.

- Bally, Mrs., *Pelham Place, Hastings.*
 Barrett, W., *Moredon House, North Curry.*
 25 Bartrum, J. S., 41, *Gay Street, Bath.*
 Bathurst, A., 2, *New Square, Lincoln's Inn, London.*
 Batten, John, *Yeovil.*
 Beadon, Edwards, *Highlands, Taunton.*
 Bernard, H., *Wells.*
 30 Berryman, W. C., jun., *Wells.*
 Bewes, Rev. T. A., *Beaumont, Plymouth.*
 Bisset, M. F., *Bagborough.*
 Blake, W., *Bridge House, South Petherton.*
 Bluett, C., *Taunton.*
 35 Bond, Rev. J., *Weston, Bath.*
 Bord, J. G., *Bruton.*
 Bouverie, P. P., jun., *Brymore House, Bridgwater.*
 Boyd, R., M.D., *Wells.*
 Boyle, Hon. and Rev. Richard, *Marston, Frome.*
 40 Brackstone, R. H., *Lyncombe Hill, Bath.*
 Braikenridge, Jerdone W., *Clevedon.*
 Braikenridge, Rev. G. Wear, „
 Bridges, H., *Bridgwater.*
 Broadley, J., 2, *Gascoyne-place, Bath.*
 45 Brown, Rev. Frederick, *Nailsea.*
 Brown, Samuel J., 10, *Finsbury Circus, London, E. C.,*
 and Spring Cottage, Merriott, Taunton.
 Browne, John, *Bridgwater.*
 Broome, C. E., *Elmhurst, Batheaston.*
 Buckle, Rev. G., *Twerton.*
 50 Bullied, J. G., *Glastonbury.*
 Bullock, George, *East Coker.*
 Bullock, G. Troyte, „
 Bumpstead, Rev. T. J., *Dinder, Wells.*
 Burridge, Wm., *Bradford.*
 55 Bush, Clement, *Weston, Bath.*
 Byam, Rev. B., *Kew, Surrey.*

 Campbell, Fraser, *Torquay.*
 Caparn, Rev. W. B., *Draycot, Weston-super-Mare.*
 Cavan, the Earl of, *Weston-super-Mare.*
 60 Chamberlain, G., *Seend, Melksham, Wilts.*
 Cheetham, David, *Bath.*
 Chisholm-Batten, E., *Lincoln's Inn, London.*

- Church, Rev. C. M., *Wells*.
 Clark, Joseph, *Street*.
 65 Clark, Rev. W. R., *Taunton*.
 Clarke, F. R.,
 Clarke, T. E., *Tremlett House, Wellington*.
 Clarke, A. A., *Wells*.
 Clerk, E. H., *Westholme House, Pilton, Shepton Mallet*.
 70 Clutterbuck, Rev. Henry, *Buckland Dinham, Frome*.
 Cogan, Henry, *Langport*.
 Coker, T., *Taunton*.
 Coleman, Rev. James, *Chapel Allerton*.
 Coles, Rev. J. S., *Shepton Beauchamp*.
 75 Cordwent, G., M.D., *Taunton*.
 Cornish, C. H.,
 Cornish, F. W., *Eton College*.
 Cox, Rev. E., *Luccombe, Minehead*.
 Combe, R. T., *Earnshill*.
 80 Crosse, Rev. J. D. O., *Pawlett*.
 Crotch, Rev. W. R., *Uphill*.

 Davies, Henry, *Weston-super-Mare*.
 Davis, Maurice, *Langport*.
 Davis, H., *Taunton*.
 85 Dawson, T., *Maryville, Trull*.
 De Haviland, John.
 Devenish, Rev. C. W., *Publow, near Keynsham, Bristol*.
 Dickinson, F. H., *Kingweston House*.
 Dickinson, E. H., *Shepton Mallet*.
 90 Doveton, Captain, *Haines Hill, Taunton*.
 Down, E., *Weston-super-Mare*.
 Dowty, F. G., *Bridgwater*.
 Du Sautoy, Rev. W., *Taunton*.

 Easton, R., *Taunton*.
 95 Edwards, Rev. H., *Churchstanton*.
 Egremont, Countess of, *Orchard Wyndham*.
 Elliot, Miss, *Taunton*.
 Elliot, W. F., *Osborne House, Taunton*.
 Elton, R. G., *Whitestaunton*.
 100 Elton, Sir Arthur H., Bart., *Clevedon Court*.
 Escott, Miss, *Hartrow House*.
 Esdaile, E. J., *Cothelstone House, (deceased.)*
 Esdaile, W. C. D., *Barley Park, Ringwood, Hants*.

- Fagan, Rev. G. H., *Rodney Stoke Rectory, Wells.*
- 105 Falconer, R. W., M.D., *Bath.*
 Falkner, Francis, "
 Falkner, Frederick, *Lyncombe Cottage, Lyncombe, Bath.*
 Fisher, J. M., *Taunton.*
 Fisher, T. "
- 110 Fiske, H. "
 Fitzgerald, Ven. Archdeacon, *Charlton Mackereel, Somerton.*
 Fortescue, Hon. Chichester, *The Priory, Chewton Mendip, Bath.*
 Foster W. J. S., *Wells.*
 Fox, C. J., M.D., *Bristolington.*
- 115 Fox, Geo. Smith, *Wellington.*
 Fox, Sylvanus, *Linden, Wellington.*
 Freeman, E. A., *Summerleaze, Wells.*
 Fuller, T. *Richmond Hill, Bath.*
- George, Rev. Philip Edward, *Combe Hay, Bath.*
- 120 George, William, *Wells.*
 Giles, C. E., 7, *Furnival's Inn, Holborn, London, E. C.*
 Giles, Captain, *Woodberry, Wells.*
 Gill, J. E., *Bath.*
 Goodford, Rev. C. O., D.D., *Provost, Eton.*
- 125 Gould, Rev. W., *Hatch Beauchamp.*
 Grenville, Ralph Neville, M.P., *Butleigh, Glastonbury.*
 Green, Emanuel, *Holcombe, Bath.*
- Hamilton, J., *Broomfield, and 116, Park-street, Grosvenor-square, London.*
 Hamilton, Rev. L. R., *Alma Villas, Bath.*
- 130 Harbin, G., *Newton House, Yeovil.*
 Harford, Wm. H., *Blaise Castle, Bristol.*
 Harford, Wm. H., jun., " "
 Harris, Charles, *Ilchester.*
 Harrison, Rev. O. S., *Thorn Falcon.*
- 135 Hawkins, Rev. H. C. H., *Chilton-super-Polden.*
 Heathcote, Rev. S., *Williton.*
 Helyar, W. H., *Coker Court, Yeovil.*
 Henderson, Robert, *Bell House, Trull.*
 Hill, Rev. R., *Timsbury, Bath.*
- 140 Hill, Miss, 16, *Phillimore Gardens, Kensington, London.*

- Hill, William John, *Langport*.
 Hippisley, Edwin, *Wells*.
 Hodges, Miss, *Moreland Hamp, Bridgwater*.
 Hodgkinson, W. S., *Wells*.
 145 Hood, Sir A. A., Bart., M.P., *St. Audries*.
 Hooper, James, *Inner Temple, London, E.C.*
 Horner, Rev. J. S. H., *Mells Park, Frome*.
 Hoskins, T., *Haselbury*.
 Hoskins, H. W., *Hinton St. George*.
 150 Hoyte, John Rocke, *Glastonbury*.
 Hunt, E., *River-street, Bath*.
 Hutchings, H., 13, *Chester-street, Grosvenor-place, London, S.W.*
- Isaacs, G., *Milverton*.
- Jackson, Rev. W., 1, *St. Giles's, Oxford*.
 155 Jeboult, E., *Taunton*.
 Johnson, Rev. F. C., *Whitelackington*.
 Joliffe, H. H., *Wells*.
 Jones, R. L.
 Jones, Rev. W. A., *Taunton*.
- 160 Kelly, W. M., M.D., *Taunton*.
 Kemmis, Mrs., *Croham Hurst, Croydon, Surrey*.
 Kidgell, G., *Wellington*.
 King, H. D., *Taunton*.
 King, Rev. C., *Stoke St. Gregory*.
 165 King, R. K. M., *Walford*.
 Kinglake, R. A., *Weston-super-Mare*.
 Kinglake, J. H., M.D., *Taunton*.
 Kinglake, Mr. Sergeant, M.P., *Court Place, West Monkton*.
 Knatchbull, W. F., M.P., *Babington House*.
 170 Knowles, C., *Bridgwater*.
 Knyfton, T. T., *Uphill*.
- Lace, Rev. W. J., *Pill, Bristol*.
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 Lambert, W. C., *Misterton, Crewkerne*.
 175 La Motte, Rev. G. G., *Milton Lodge, Wells*.
 Lance, Rev. J. E., *Buckland St. Mary*.

- Langton, W. H. P. G., M.P., *Hatch Park, Taunton.*
 Langton, W. H. G., M.P., *Clifton.*
 Leigh, Henry, 3, *Plowden Buildings, Temple, London.*
 180 Lethbridge, A. G., *Eastbrook, Taunton.*
 Liversedge, John, *Taunton.*
 Liddon, H.,
 Livett, H. W., M.D., *Wells.*
 Long, W., *Lansdown-place, Bath.*
 185 Lovelace, the Earl of, *Ashley Combe, Porlock.*
- Marwood, John Barry, 13, *Ashton Terrace, Coronation Road, Bristol.*
 May, Frederick, *Taunton.*
 Mayhew, T., *Glastonbury.*
 190 Meade, Rev. R. J., *Castle Cary.*
 Meade, Rev. William, *Binegar Rectory, Oakhill, Bath.*
 Medlycott, Sir W. C., Bart., *Ven House, Milborne Port.*
 Metford, W., M.D., *Flook House, Taunton.*
 Meyler, T., *Taunton.*
 195 Michell, Rev. R., B.D., *Magdalene Hall, Oxford.*
 Miles, Sir W., Bart., *Leigh Court, Bristol.*
 Moor, Rev. J. F., *Sion Place, Sion Hill, Bath.*
 Moor, Rev. W. R., *Stoke St. Gregory.*
 Moore, C., *Cambridge-place, Bath.*
 200 Moysey, H. G., *Bathealton Court.*
 Munckton, W. W., *Curry Rivel.*
 Murch, Jerom, *Cranfields, Bath.*
 Murley, G. B., *Langport.*
- Naish, W. B., *Ston Easton.*
 205 Neville, Rev. F., *Butleigh.*
 Newton, F. W., *Barton Grange.*
 Norman, J. F., *Staplegrove, Taunton.*
 Norris, Hugh, *South Petherton.*
- Ommanney, Rev. G. D. W., *Brislington, near Bristol.*
- 210 Paget, I. M., *Cranmore Hall, Shepton Mallet.*
 Palaret, Rev. R., *Norton St. Philip.*
 Parfitt, the Very Rev. C. C., *Cottles, Melksham, Wilts.*
 Parsons, James, *Drayton, near Taunton.*
 Paul, W. Bond, *Langport.*
 215 Patton, Capt. T., R.N., *Bishop's Hull.*

- Penny, Rev. C., *West Coker, Yeovil.*
 Perceval, Capt., *Severn House, Henbury, Bristol.*
 Perkins, C. F., *Kingston, Taunton.*
 Perrin, Rev. George, *Wellington.*
 220 Philipps, Dan, *Bridgwater.*
 Philpott, Rev. R. S., *Chewton Mendip.*
 Pinchard, W. P., *Taunton.*
 Pinder, Rev. Professor, *Wells.*
 Pinney, W., *Somerton Erleigh.*
 225 Pitman, S., *Bishop's Hull.*
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 Poole, G. S., *Bridgwater.*
 Poole, J. R., *Cannington.*
 230 Pope, Dr., *Glastonbury.*
 Porch, T. P., *Edgarley.*
 Portman, Rev. F. B., *Staple Fitzpaine.*
 *Portman, Lord, *Bryanstone, House, Dorset.*
 Pranker, John, *Langport.*
 235 Pring, J. H., M.D., *Taunton.*
 Prior, R. C. A., M.D., *Halse.*
 Pulteney, Rev. R. T., *Ashley Rectory, Northamptonshire.*
 Pyne, Rev. W., *Charlton, Somerton.*

 Quekett, E., *Langport.*

 240 Raban, R. B., *Shirehampton.*
 *Ramsden, Sir John, Bart., *Byam, Yorkshire.*
 Rawle, T., *Taunton.*
 Redfern, Rev. W. T., *Taunton.*
 Reynolds, Vincent J., *Canons Grove, Taunton.*
 245 Richards, Rev. T. M., *Alcombe.*
 Robbins, G., *Midford Castle, near Bath.*
 Rocke, J. J., *Glastonbury.*
 Rogers, G., *Bishops Hull.*
 Rowcliffe, Charles, *Milverton.*
 250 Ruegg, Lewis H., *Sherborne, Dorset.*

 Salmon, Rev. E. A., *Martock.*
 Sampson, Thomas, *Preston Plucknett, Yeovil.*
 Sanford, E. A., *Nynehead Court.*
 Sanford, W. A.,
 255 Scarth, Rev. H. M., *Bathwick, Bath.*

- Scott, Rev. J. P., *Staplegrove*.
 Scratchley, Rev. C. J., *Lydeard St. Lawrence*.
 Serel, Thomas, *Wells*.
 Sewers, Robert, *Curry Rivel*.
 260 Seymour, Alfred, M.P., *Knoyle, Wilts*.
 * Seymour, H. D., M.P., *Knoyle, Wilts*.
 Sheppard, A. B., *Torquay*.
 Shore, J., *Whatley, near Frome*.
 Shout, R. H., 35, *Coleman Street, London, E.C.*
 265 Shuldham, Miss E., *Norton Fitzwarren*.
 Smirke, Edward, 18, *Thurloe Square, London, S.W.*
 Smith, Cecil, *Bishop's Lydeard*.
 Smith, Mrs., *Bishop's Lydeard*.
 Smith, Richard, *Bridgwater*.
 270 Smith, Lady, *Somerton*.
 Solly, Miss, L., *Bath*.
 Somerville, J. C., *Dinder, Wells*.
 Sotheby, Rev. T. H., *Milverton*.
 Sowdon, Rev. Fredk., *Dunkerton*.
 275 Speke, W., *Jordans, near Itminster*.
 Spicer, R. W., *Chard*.
 Stanton, Rev. J. J., *Lovington, Castle Cary*.
 Stansell, Alfred, *Taunton*.
 Stephenson, Rev. J. H., *Lympsham*.
 280 Stuart, Rev. T. B., *Wookey*.
 Stone, W. H., *Budleigh Salterton*.
 Strachey, Sir E., Bart., *Sutton Court, Pensford, Bristol*.
 Stradling, W. J. L., *Chilton-super-Polden*.
 Stuckey, V., *Langport*.
 285 Surtees, W. Edward, *Tainfield*.
 Sweet, Rev. C., *Sampford Arundel*.
 Symes, Rev. R., *Cleeve, Bristol*.

 Talbot de Malahide, Lord, *Evercreech, Shepton Mallet*.
 Tasker, Rev. J. C. W., 1, *Upper Lansdown Villas, Bath*.
 290 Taunton, Lord, *Quantock Lodge*.
 Thomas, C. J., *Drayton Lodge, Redland, Bristol*.
 Thompson, F. J., *Hamp, Bridgwater*.
 Thorley, Joseph, *Wells*.
 Thring, Rev. Godfrey, *Alford, near Castle Cary*.
 295 Thring, Theodore, *Fulwood Park, Liverpool*.
 Todd, Lt.-Col., *Keynston, Blandford*.
 Tomkins, C., M.D., *Weston-super-Mare*.

- Tomkins, Rev. H. G., 4, *Elm Grove Road, Exeter.*
- 300 Tompkins, George, *Wells.*
 Trenchard, H. C., *Taunton.*
 Trevelyan, Sir W. C., Bart., *Nettlecombe Court, and*
Wallington, Northumberland.
 Trevelyan, Lady " "
 Trevelyan, Sir C. E.
- 305 Trevelyan, Rev. E. O., *Stogumber.*
 Trevelyan, Arthur, *Tyneholm, Tranent, N.B.*
 Trevelyan, Miss, *Nettlecombe Court.*
 Trew, Richard, *Azbridge.*
 Tucker, Rev. H. T., *Leigh Court, Wellington.*
- 310 Turle, H., *Taunton.*
 Turner, C. J., *Staplegrove.*
 Tyler, Rev. Charles Edw., *Rectory, Chelwood, Bristol.*
 Tylor, Edw. Burnet, *Wellington.*
- Uttermare, T. B., *Langport.*
- 315 Voules, Rev. T. A., *Ashill, Ilminster.*
- Wallis, Rev. Robert E., *Vicar's Close, Wells.*
 Walker, L., 12, *Bryanstone Square, London.*
 Walter, R., *Stoke-sub-Hamdon.*
 Walters, G., *Frome.*
- 320 Ward, Rev. J. W., *Ruishton.*
 Warre, Rev. F., *Bishop's Lydeard.*
 Warre, H., *Bindon, Wellington.*
 Warren, J. F. H., *Langport.*
 Warren, Rev. J., *Bawdrip.*
- 325 Webber, Rev. E. A., *Runnington.*
 Welch, C., *Minehead.*
 Welman, C. N., *Norton Manor.*
 Welsh, W. I., *Wells.*
 White, C., *St. Anne's Heath, Chertsey.*
- 330 White, F., *Wellington.*
 White, Rev. F. W., *Meare Vicarage, Glastonbury.*
 Whitmash, E., 12, *Lansdown Terrace, Bridge Road,*
Battersea, London.
 Wickham, Rev. H. D., *Horsington Rectory, Wincanton.*
 Williams, Rev. G., *Burnham.*
- 335 Wilks, Rev. Theodore C., *Nately Scures, Hants.*
 Winwood, Rev. H. H., 4, *Cavendish Crescent, Bath.*

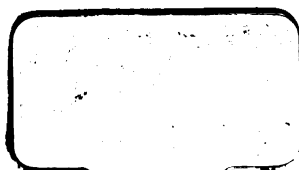
- Woodforde, F. H., M.D., *Amberd House, Taunton.*
 Woodforde, G. A., *Castle Cary.*
 Woodland, J., *Minehead.*
 340 Woodward, W., *Langport.*
 Yatman, Rev. J. A., *Winscombe, Weston-super-Mare.*
-

New Members.

- Alford, —, *Shepton Mallet.*
 Allen, J. Mountford, *Crewkerne.*
 Baker, John, *Ilminster.*
 345 Barnwell, Rev. E. L., *Ruthin.*
 Bramble, James Roger, *Yatton.*
 Brown, S. Sneade, 5, *Cavendish Place, Bath.*
 Burt, G. R., *Ilminster.*
 Bush, James, *Omar Pasha Villa, White Ladies Road, Clifton.*
 350 Chapman, Right Rev. Bishop, *Wotton Courtney.*
 Davis, C. E., 55, *Great Pulteney Street, Bath.*
 Furneaux, Rev. W. Duckworth, *Berkeley, Frome.*
 Gawne, Rev. Murray, *Coxley, Shepton Mallet.*
 Gillett, Geo., *Taunton.*
 355 Gover, H., LL.D., *Courtlands, Taunton.*
 Gowing, Rev. G. J., *Ilminster.*
 Hammond, H. W., *Manor House, Priston, Bath.*
 Heard, Robert, *Shepton Mallet.*
 Hicks, J.
 360 Hill, Mr. Commissioner, *Stapleton, Bristol.*
 Hunt, Rev. W., *Congresbury, Bristol.*
 King, Walter Meade, *Taunton.*
 King, W. Poole, *Avonside, Clifton Down.*
 Knott, John, *Ilminster.*
 365 Lang, Thomas, *Baldwin Street, Bristol.*
 Langworthy, V. Upton, *Ilminster.*
 Lyle, Thos., M.D., *Lunatic Asylum, Exeter.*
 Malet, Arthur, *Munty's Court, Taunton.*
 Malet, Octavius W., *Haygrass House, Taunton.*
 370 Malet, Rev. W. Wyndham, 17, *St. James's Place, London.*

- Marshall, Rev. W., *Ilton*.
 Marshall, G. W., LL.M., *Weacombe House, Bicknoller*.
 Mitchell, W. S., LL.B., F.G.S., *St. George's Lodge, Bath*.
 Moss, Rev. J. J., *East Lydford*.
 375 Mules, Rev. C. M. Speke, *Vicarage, Curry Rivell*.
 Paget, R. H., M.P., *Cranmore Hall, Shepton Mallet*.
 Pinchard, J. H. B., *Taunton*.
 Randall, Rev. H. G., *St. Mary Redcliff Vicarage, Bristol*.
 Robinson, Walter, 7, *Furnival's Inn, Holborn, London, E. C.*
 380 Rutter, John, *Ilminster*.
 Sharp, J. C., *Ilminster*.
 Shepherd, J. W., *Ilminster*.
 Sparks, William, *Crewkerne*.
 Stayner, James, *Ilminster*.
 385 Tarleton, Rev. W. H., *Shepton Mallet*.
 Templeman, Rev. Alex., *Puckington*.
 Trask, Charles, *Norton, Ilminster*.
 Walker, W. C., *Shepton Mallet*.
 Ware, Rev. George, *Winsham*.
 390 Weatherley, Christopher, 39, *High Street, Wapping, London, E.*
 Whitfield, Rev. E., *Ilminster*.
 Williams, Rev. Wadham Pigott, *Bishop's Hull*.

Members are requested to inform either of the Secretaries of any errors or omissions in the above list; they are also requested to authorise their Bankers to pay their subscriptions annually to Messrs. Badcock or Messrs. Stuckey, Taunton; or to either of their branches; or their respective London Agents, on account of the Treasurer.



the 1990s, the number of people in the UK who are aged 65 and over has increased by 1.5 million (1990–1999) and is projected to increase by a further 1.5 million by 2010 (Office for National Statistics 2000). The number of people aged 65 and over is projected to increase by 2.5 million by 2020 (Office for National Statistics 2000).

There is a growing awareness of the need to develop strategies to meet the needs of the ageing population. The Department of Health (1999) has published a strategy for the ageing population, which sets out the government's commitment to improve the health and well-being of older people. The strategy is based on the following principles:

- To improve the health and well-being of older people.
- To ensure that older people have access to the services they need.
- To ensure that older people are able to live independently.
- To ensure that older people are able to participate in society.

The strategy is based on the following principles: to improve the health and well-being of older people, to ensure that older people have access to the services they need, to ensure that older people are able to live independently, and to ensure that older people are able to participate in society.

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